



European
Commission

ECSC final reports

Contract N°	Start Date	End Date	Acronym	Title	TG	EUR N°	Publication Year
7210-AA/142	1/07/1996	30/06/1999		Optimization of tapping strategy by advanced assessment of the liquid level in the heart of the blast furnace	B	19482	2000
7210-AA/143	1/07/1996	30/06/2000		Coke quality requirements for blast furnace operation with high levels of coal/oil injection	B	20105	
7210-AA/144	1/07/1996	30/06/2000		Fe burden quality at high coal injection rates	B	20106	
7210-AA/219	1/07/1995	31/12/1998		Modelling of gas and char flows at high PCI rates through experimental and theoretical studies of the raceway and the dead man	B	20094	
7210-AA/320	1/07/1995	30/06/1999		Assessing the internal state of the raceway/dead man area of the blast furnace at low coke rate	B	20172	
7210-AA/421	1/12/1995	31/05/1998		Investigation of fuzzy logic and neural network based strategies for control optimisation of iron making processes	B	19348	2000
7210-AA/425	1/07/1996	30/06/1999		Development of technologies for treatment of dusts and sludges containing zinc and lead to improve their recycle reuse (TREATDUST)	B	19474	2000
7210-AA/824	1/10/1996	31/03/2001		Reductions in dust and gaseous emissions from sinter strands	B	21146 EN	2004
7210-AA/901	1/12/1995	30/11/1998		Advanced control of operational sintering using on-strand-measurements and neural network	B	19344	2000
7210-CA/182	1/07/1995	31/12/1999		Improvement of internal quality by controlling the microstructure of microalloyed cast steel	C3	19491	2000
7210-CA/184	1/07/1995	30/06/1999		Optimization of the straightening process in continuous casting	C3	19850	
7210-CA/186	1/07/1996	30/06/2000		Strand reduction in slab casting and its effect on quality	C3	20190	
7210-CA/191	1/07/1996	30/06/1999		Development of high speed casting in conventional CC stainless steel slab production	C3	19849	2000
7210-CA/503	1/07/1995	30/06/1999		Study and optimisation of the secondary cooling technique for the continuous casting of beam blanks	C3	20183	
7210-CA/603	1/07/1995	31/12/1998		Blowhole prevention by optimal feeding systems	C3	19373	1999
7210-CA/838	1/07/1995	31/12/1998		Influence of mould metallurgy on concast surface quality	C3	19380	1999
7210-CA/841	1/07/1996	31/12/1999		Enhanced steel product quality and yield by applying the results of improved modelling of transient conditions in the tundish	C3	19851	2000
7210-CA/842	1/07/1996	31/12/1999		Mould powder development for higher casting speeds and thin slab casting	C3	19490	2000
7210-CA/843	1/07/1996	31/12/1999		Control of thermal and mechanical forces in the mould and upper part of slab, bloom and billet casters	C3	20180	

7210-CA/902	1/11/1995	31/10/1998	Control of liquid slag carry-away and entrapment in the CC mold for a better surface and subsurface quality: numerical and experimental study	C3	19360	1999
7210-CA/903	1/12/1995	30/11/1998	Blowhole prevention by optimal feeding systems	C3	19373	2000
7210-CA/904	1/11/1995	31/10/1998	Improvement of internal quality by controlling the microstructure of microalloyed cast steel	C3	19491	
7210-CA/905	1/12/1995	30/11/1998	Optimisation of mould powder performance in casting long products	C3	19363	1999
7210-CB/124	1/07/1995	31/12/1998	Decreasing the scorification of chrome	C1	19382	2000
7210-CB/126	1/09/1996	31/08/1999	Optimization of energy consumption of three-phase electric arc furnaces using plant signals and thermal modelling	C1	20174	
7210-CB/130	1/07/1996	30/06/1998	Characteristics of hot-air/oxygen/fuel burner for increasing the input of fossil energy in the EAF and comparison with conventional burners	C1	19472	1999
7210-CB/206	1/07/1995	31/12/1998	Improvement of the EAF performances through optimization of foaming slag practice	C1	19470	2000
7210-CB/312	1/07/1995	31/12/1998	Low nitrogen in EAF steelmaking	C1	19349	2000
7210-CB/313	1/07/1996	30/06/1999	Quality of heavy market scrap: development of new and simple methods for quality assessment & quality improvement	C1	20175	
7210-CB/503	1/07/1996	30/06/1999	Modelling and optimization of oxygen lances, tuyeres and of the injection technique of various materials into electric arc furnaces	C1	19471	2000
7210-CB/817	1/07/1996	31/12/1999	Radio wave interferometer technique for BOF slag control	C1	19473	2000
7210-CB/818	1/07/1996	31/12/1999	Neural networks for process condition prediction in basic oxygen steelmaking	C1	19467	
7210-CB/819	1/07/1996	31/12/1999	Improving the recyclability of organic coated/metallic coated steels	C1	19847	2000
7210-CB/903	1/11/1995	31/10/1998	Improvement of the EAF performances through an optimization of the foaming slag practice - slag level measurement using radio wave techniques	C1	19470	
7210-CC/112	1/07/1995	30/06/1999	Improvement of macro-cleanliness of continuous-cast slabs for high specification products	C3	19848	
7210-CC/114	1/07/1995	30/06/1999	Improvement of cleanliness and fine-grain structure of Ca-treated and Al-deoxidised steels with a high S content made by continuous casting of billets and blooms	C2	19486	
7210-CC/116	1/07/1995	30/06/1999	Improvement of vacuum circulation plant operation on the basis of the BFI simulation model	C2	19488	2000
7210-CC/118	1/11/1995	31/10/1998	Development and control of suitable slag systems for improving steel cleanliness in ladle treatment and tundish metallurgy	C2	19476	
7210-CC/121	1/07/1996	30/06/1999	Dynamic modelling and control of the vacuum degassing process	C2	19484	2000

7210-CC/123	1/07/1996	30/06/1999	Control of ejections caused by bubble bursting in secondary steelmaking processes	C2	19487	
7210-CC/125	1/07/1996	30/06/1999	Prevention of recarburization of ULC steels during reheating	C2	19483	
7210-CC/302	1/07/1996	30/06/1999	Development of techniques to minimise ladle/slag interactions and prevent uncontrolled inclusion modification	C2	19485	2000
7210-CC/808	1/07/1995	31/12/1998	Improving deoxidation practices for ultra clean steel production	C2	19352	2000
7210-EA/150	1/07/1996	31/12/2000	Optimizing and monitoring the impact of friction, wear and lubrication in hot rolling	D2	20209	
7210-EA/152	1/07/1996	30/06/1999	Improved strip flatness control and presetting systems by analyzing the strip behaviour as well as by simulating and practical testing the efficiency of actuators in cold roll...	D2	20102	
7210-EA/205	1/07/1996	31/12/1999	Improved strip shape in high speed continuous annealing lines	D2	20095	
7210-EA/206	1/07/1996	30/06/1999	Increased efficiency and functionality of pickling lines	D2	19872	2000
7210-EA/329	1/07/1995	30/06/1999	Lubrication during cold rolling: understanding and control of main rolling parameters and improved use of rolling oils	D2	20092	2000
7210-EA/427	1/07/1996	30/06/1999	Improvement of micro-structural homogeneity of hot rolled strips through transverse temperature control	D2	19870	2000
7210-EA/428	1/07/1996	30/06/1999	Development of a knowledge-based system for improved operations of waste-water treatment plants in a cold rolling area (KNOWATER)	E	19414	2000
7210-EA/827	1/07/1995	31/12/1998	Optimisation of the use of strip geometry control system	D2	20101	2000
7210-EA/830	1/07/1996	31/12/1999	Improving the hot rolling process of surface critical steels by improved and prolonged working life of work rolls in the finishing section	D2	19871	2000
7210-EA/901	1/11/1995	31/10/1998	Optimisation of the use of strip geometry control system	D2	20101	2000
7210-EB/108	1/07/1995	30/11/1999	Improved atmosphere control for product quality and combustion efficiency in reheating furnaces	D1	19855	2000
7210-EB/309	1/07/1996	30/06/1999	Descaling adherent scales while reducing hot bar heat losses	D1	19856	
7210-EB/810	1/07/1995	31/12/1998	Assessment of long product defects	D1	19869	1999
7210-EB/901	1/11/1995	30/11/1999	Improved atmosphere control for product quality and combustion efficiency in reheating furnaces	D1	19855	
7210-EC/115	1/07/1995	31/12/1998	New cold rolled, deep drawing steel qualities	D3	20099	
7210-EC/115	1/07/1995	31/12/1998	New cold rolled, deep drawing steel qualities	D3	20099	2000
7210-EC/118	1/07/1995	31/12/1998	Strip with gradient properties by annealing in reactive atmosphere	D3	19890	1999
7210-EC/119	1/07/1996	30/06/1999	Effect of the high speed cooling rate on the microstructure and precipitation state in hot rolled IF steels	D3	19878 EN	
7210-EC/119	1/07/1996	30/06/1999	Effect of the high speed cooling rate on the microstructure and precipitation state in hot rolled IF steels	D3	19878 EN	2000

7210-EC/214	1/07/1996	30/06/1999	Texture control in rolled steel sheets for an optimized anisotropy	D3	20100	
7210-EC/215	1/07/1996	30/06/1999	Development of Al-killed weldable steels by near-net-shape-casting microalloyed with Ti and N ₂	D3	20217	
7210-EC/308	1/07/1996	30/06/1999	Optimization of thermomechanical treatments to improve the geometry control and the mechanical properties of high strength steel heavy products	D3	20096	
7210-EC/406	1/07/1995	30/06/1998	Development of high strength-high quality hot strip for ERW pipes, produced by the thin-slab casting technology	D3	19383	1999
7210-EC/605	1/07/1995	30/06/1999	New hot rolled, deep drawing steel qualities	D3	19889	2000
7210-EC/811	1/07/1996	31/12/1999	The effect of strain reversal and strain-time path on constitutive relationship for metal rolling/forming process	D3	19891	2000
7210-EC/901	1/11/1995	31/10/1998	New cold-rolled deep drawing qualities	D3	20099	
7210-GB/125	1/10/1996	30/06/2000	Development of a prototype facility for non-destructive magneto-inductive determination of direction-dependent mechanical/technological sheet properties	T4	20314	
7210-GB/314	1/07/1996	31/12/1999	Improvement of automatic surface inspection in flat steel products	T4	20082	2000
7210-GB/317	1/07/1996	31/12/1999	On-line measurement of the surface cleanliness of steel strip	E	19893	2000
7210-GB/811	1/07/1995	31/12/1998	Continuous assessment of steel quality during continuous casting	C3	19351	2000
7210-GB/901	1/11/1995	31/10/1998	Continuous assessment of steel quality during continuous casting	C3	19351	2000
7210-GD/120	1/07/1996	30/06/1999	Sensitivity enhanced laser analysis (SELA) of steel melts for fast multi-element on-line analysis during ladle processing in secondary metallurgy	E	19411	
7210-GD/120	1/07/1996	30/06/1999	Sensitivity enhanced laser analysis (SELA) of steel melts for fast multi-element on-line analysis during ladle processing in secondary metallurgy	E	19411	2000
7210-GD/412	1/07/1995	30/06/1998	Composition related properties of very thin films on steel products: rapid quantitative analysis by DC GD-OES	E	19413	1999
7210-GD/903	1/11/1995	31/10/1997	Rapid quantitative analysis of non conductive surface layers of steels by RF glow discharge optical emission spectrometry	E	18919	1998
7210-GD/905	1/12/1995	31/05/1999	The development of rapid assessment methods for inclusions in clean steel	E	19892	
7210-GD/906	1/12/1995	30/11/1998	Evaluation of the contents of trace elements in complex steel matrices from scrap to final component	E	19412	1999
7210-KA/203	1/07/1995	31/12/1998	High strength steels and line pipe with optimized Y/T ratio	F5	19987	2000
7210-KA/327	1/07/1996	30/06/1999	Fracture toughness predictions for modern low carbon higher strength steels based on microstructural and micromechanistic approaches	F5	20093	

7210-KA/824	1/07/1996	31/12/1999	Steel selection for fracture avoidance in steel ships	F5	20048	
7210-KA/827	1/09/1996	29/02/2000	Improved grain size control in heat treated steels	F5	20322	
7210-KB/340	1/07/1996	30/06/1999	Assessment of stainless steels compatibility in food and health applications regarding their passivation ability	F3	19986	
7210-KB/440	1/12/1995	30/11/1998	Role of residual stresses and microstructure on fatigue initiation and crack growth in welded rails (RESTRAIL)	F5	19988	
7210-KB/441	1/07/1996	30/06/1999	Environmentally assisted cracking and localised corrosion of some corrosion resistant alloys in brine and H2S containing environments (CORALLOY)	F3	20091	
7210-KB/443	1/07/1996	31/12/1998	CORRONOISE - Electrochemical noise for field corrosion measurement	F7	20046	1999
7210-KB/937	1/07/1995	31/12/1998	Factors influencing the corrosion behaviour of coated steel sheets in lap joints	F7	20067	2000
7210-MA/132	1/07/1996	31/12/1999	Improvement of stainless steels for use at elevated temperatures in aggressive environments	F3	20103	
7210-MA/133	1/07/1996	30/06/1999	Development of nitrogen-alloyed duplex stainless steel with optimized microstructure and texture by improvement of forming	F3	20326	
7210-MA/319	1/07/1995	31/12/1998	Elaboration of high-nitrogen stainless steels (>0.4% N) by AOD/VOD. Improvement of melting practices by thermodynamic and kinetic studies	F3	19417	2000
7210-MA/321	1/07/1995	31/12/1998	Duplex stainless steels for structural applications: offshore, civil engineering, transport	F3	19974	2000
7210-MA/325	1/07/1996	30/06/1999	Influence of steelmaking processes on welding (cladding, repairing) and high speed machining of mould dies: Consequences of these parameters on chemical etching	F3	20587 EN	
7210-MA/432	1/07/1995	31/12/1998	New cold rolled stainless steels with deep drawing qualities obtained by ultra rapid heat treatment	F3	19388	2000
7210-MA/433	1/07/1995	31/12/1998	Stainless and electrical steel strip properties as affected by high solidification rate of strip casting process	F3	19981	
7210-MA/437	1/07/1996	30/06/1999	Establishment of anti-crash/anti-intrusion solutions based on high-strength stainless steels to increase the passive safety of vehicles (INOXSAFE)	F3	19982	
7210-MA/438	1/07/1996	30/06/1999	In-service qualification of adhesive bonded stainless steel components (BONDINOX)	F3	19979	
7210-MA/439	1/07/1996	30/06/1999	Development of a new electrolytic/potentiostatic pickling process for stainless and high alloyed steels (PICKINOX)	F3	20090	
7210-MA/440	1/07/1996	30/06/1999	Fatigue behaviour of stainless steels for railway carriages in corrosive environments (TRAINOX)	F3	20327	

7210-MA/901	1/11/1995	30/04/1999	Duplex stainless steels for structural applications : Offshore, civil engineering, transport	F3	19974	
7210-MA/903	1/10/1995	30/09/1997	Fracture behaviour of welded duplex stainless steels for low temperature applications	F3	19973	1999
7210-MA/951	1/07/1995	31/12/1998	Fatigue design of welded stainless steels	F3	19972	2000
7210-MA/952	1/12/1995	30/11/1998	Low nickel austenitic stainless steel with elevated resistance to pitting corrosion	F3	19379	1999
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7210-MB/821	1/10/1996	31/03/2001	Investigations of the hydroforming process with a view to reducing weight in automobiles	F4	20317	
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7210-PR/001	1/07/1997	31/12/2000	Industrial operation at low coke rate and coal injection in excess of 220kg/tHM	B	20107	
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7210-PR/006	1/07/1997	31/12/2000	Wear of the blast furnace hearth	B	20109	
7210-PR/007	1/07/1997	31/12/2000	Reduction in BOS stack emissions by controlling the combustion of waste gas	C1	20205	
7210-PR/008	1/07/1997	31/12/2000	Optimization of high voltage AC electric arc furnace control	C1	20176	
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7210-PR/012	1/07/1997	31/12/2000	Control of the dendritic structure of the initial frozen shell in continuous casting	C3	20185	
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7210-PR/016	1/07/1997	31/12/2001	Measurement and modelling of crater end position and shape during transient casting conditions	C3	20499	
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7210-PR/065	1/07/1997	31/12/2000	Improvements in hot dip galvanising and galvannealing processes and product properties	F7	20465	
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7210-PR/070	1/07/1998	31/12/2001	Injectant coal gasification, char formation and char utilisation at high injection rates	B	20940 EN	2003
7210-PR/071	1/07/1998	30/06/2001	Injection of slag correction components into the blast furnace	B	20472	
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7210-PR/073	1/07/1998	31/12/2001	Above burden & in burden probe data interpretation by neural network based model to improve blast furnace control	B	20725	2003
7210-PR/074	1/07/1998	31/12/2001	Optimized blast furnace slag water quenching with sulphur compounds control	B	20584	
7210-PR/075	1/07/1998	31/12/2002	Production of steels at lower operating costs in EAF	C1	20895 EN	2003
7210-PR/076	1/07/1998	31/12/2001	Artificial intelligence/expert systems for steelworks pollution controls	C1	20501	
7210-PR/077	1/07/1998	30/06/2001	Improved utilisation of fossil fuel by injection through hollow electrodes in the EAF	C1	20730	2003
7210-PR/078	1/07/1998	31/12/2001	Reoxidation and ignition behaviour of DRI to improve safety	C1	20632	2003
7210-PR/079	1/07/1998	30/06/2001	Control of inclusion, slag foaming and temperature in vacuum	C2	20562	

			degassing			
7210-PR/080	1/07/1998	30/06/2001	Desulphurisation of liquid steel with refining top slags	C2	20474	
7210-PR/081	1/07/1998	31/12/2002	Improved control of segregation in continuous casting & hot rolling processes	C3	20886 EN	2003
7210-PR/082	1/07/1998	31/12/2001	Self condition monitoring of continuous casting machines	C3	20626	
7210-PR/083	1/07/1998	31/12/2001	Improvement of casting fluxes & slags by minimization of environment-polluting & corrosive constituents (fluorine, alkali)	C3	20645 EN	
7210-PR/084	1/07/1998	30/06/2002	Determination of high temperature surface crack formation criteria in continuous casting and thin slab casting	C3	20897 EN	2003
7210-PR/085	1/07/1998	31/12/2001	Direct application of direct cast steel products	C3	20579	
7210-PR/086	1/07/1998	31/12/2001	Development of systems to aid flexible rolling of long products to close tolerances by on-line calculation of loaded roll gap, control of stand speeds and reheat	D1	20473	
7210-PR/087	1/07/1998	30/06/2002	Automatic control of roller and gag press straightening operations for sections	D1	20892 EN	2003
7210-PR/088	1/07/1998	31/12/2001	The development of portable expert systems for fault finding & maintenance of rolling mills	D2	21217 EN	2004
7210-PR/089	1/07/1998	31/12/2001	Improved control in cold rolling by use of information about incoming hot rolled cross sectional profile & camber	D2	20510	
7210-PR/090	1/07/1998	30/06/2001	Controlled and improved work roll cooling	D2	20509	
7210-PR/091	1/07/1998	31/12/2002	Improved quality of hot rolled coil by means of advanced control methods	D2	21132 EN	2004
7210-PR/092	1/07/1998	31/12/2001	Ferritic-bainitic and trip steels for improved combination of strength and ductility	D3	20567 EN	
7210-PR/093	1/07/1998	31/12/2001	Influence of tramp elements on the resistance to hotdeformation and on the properties of hot rolled products	D3	20464	
7210-PR/094	1/07/1998	30/06/2001	High productivity low temperature rolling	D3	20471	
7210-PR/095	1/07/1998	30/06/2001	Influence of strain rate on deformation behaviour, austenite structure & kinetik of Gamma/Alpha transformation	D3	20581 EN	2003
7210-PR/096	1/07/1998	31/12/2001	Control of phase transformation during processing of partially bainitic multi-component strip steels for controlling the work hardening characteristics	D3	20582	
7210-PR/097	1/07/1998	30/06/2001	New method for contactless measurement of true temperature of hot steel strips and control of the total thermal process by in situ spectroscopy	E	20463	
7210-PR/098	1/07/1998	31/12/2001	Recycling of rolling oil emulsions: towards an economic and environmentally sustainable process	E	20625	

7210-PR/099	1/07/1998	31/12/2001	Investigation of vacuum ultra violet optical emission spectrometry for the determination of low levels of C, N, O and H	E	20628	
7210-PR/100	1/07/1998	30/06/2000	Rapid quantitative depth profile analysis of non-conductive surface layers on steels by radio frequency glow discharge optical emission spectrometry - phase II	E	20220	
7210-PR/101	1/07/1998	30/06/2001	Improvement of cleanability & disinfection of stainless steel surfaces for the food industry (dairy & meat)	F3	20476	
7210-PR/102	1/07/1998	31/12/2001	Non polluting stainless steel descaling & pickling by use of high pressure water jets	F3	21130 EN	2003
7210-PR/103	1/07/1998	30/06/2001	Development of carburizing steels for ultra high process temperatures	F3	20630	2003
7210-PR/104	1/07/1998	31/12/2002	Multiaxial fatigue in thin gauge high strength steels for automotive applications	F4	20885 EN	2003
7210-PR/105	1/07/1998	31/12/2001	Low cost tooling for lean manufacture of automotive components	F4	20319	
7210-PR/106	1/07/1998	30/06/2001	Optimization of structure & texture of tinplate for easy-opening can ends	F4	20563	
7210-PR/107	1/07/1998	30/06/2001	Metallurgical aspects of fatigue resistance and cold work embrittlement of thin sheets	F4	20475	
7210-PR/108	1/07/1998	31/12/2001	Prediction of structural behaviour on the basis of small scale specimen testing - press	F5	20882 EN	
7210-PR/108	1/07/1998	31/12/2001	Prediction of structural behaviour on the basis of small scale specimen testing - press	F5	20882 EN	2003
7210-PR/109	1/07/1998	30/06/2001	Efficient welding with advanced steels and high power energy beams	F5	20507 EN	
7210-PR/110	1/07/1998	30/06/2001	Application of new fracture mechanics concepts to hydrogen damage evolution	F5	20588 EN	
7210-PR/111	1/07/1998	30/06/2001	Optimisation of ductility of welded steel bars, ribbed coils and mesh fabric for reinforced concrete elements under severe seismic loads	F5	20506	
7210-PR/112	1/07/1998	30/06/2002	Design tools for the behaviour of multi-storey steel framed buildings exposed to natural fires	F6	20953 EN	2003
7210-PR/113	1/07/1998	31/12/2001	Composite bridge design for small and medium spans	F6	20583	
7210-PR/114	1/07/1998	30/06/2001	Roadsteel - improvement of collapse behaviour of all-steel road safety barriers	F6	20564	
7210-PR/115	1/07/1998	30/06/2001	Development of dry composite construction systems based on steel for residential applications	F6	20375	
7210-PR/116	1/06/1998	31/12/2001	Life cycle assessment (LCA) for steel construction	F6	20570 EN	

7210-PR/117	1/07/1998	31/12/2001	Multilayer coatings with improved performance for construction applications	F7	20508 EN	
7210-PR/118	1/07/1998	30/06/2001	Enhanced hot dip galvanizing by controlled oxidation in the annealing furnace	F7	20566	
7210-PR/119	1/07/1998	30/06/2001	Influence of strip surface texture and microstructure in hot dip galvanizing	F7	20502 EN	
7210-PR/120	1/07/1998	30/06/2001	Coated steel strip for fuel tanks	F7	20631	
7210-PR/121	1/07/1998	30/06/2001	New chromium free thin organic coatings for Z, ZA and ZF	F7	20729 EN	2003
7210-PR/122	1/07/1999	30/06/2002	New approach for the determination of the blast furnace cohesive zone	B	20941 EN	2003
7210-PR/123	1/07/1999	30/06/2002	Determination of the coke bed voidage in the blast furnace hearth	B	20942 EN	2003
7210-PR/124	1/07/1999	30/06/2002	Study of the behaviour of cement and mass joints utilized in aggregates of the steel industry	B	21133 EN	2003
7210-PR/125	1/07/1999	31/12/2002	Critical review of existing procedures for the characterisation of the metallurgical properties of blast furnace burden material at conditions of high injection rates	B	20943 EN	2003
7210-PR/126	1/07/1999	31/12/2002	Continuous raceway monitoring by advanced methods	TGS1	21337 EN	2004
7210-PR/127	1/07/1999	31/12/2002	Influence of sinter mix materials on the environmental impact of high productivity iron ore sintering	TGS1	21429 EN	2004
7210-PR/128	1/07/1999	31/12/2002	Improved process control of hot metal production through a non-intrusive, on-line sensing system for metals in topgas of blast furnace (PROCSSYMO)	B	21127 EN	2003
7210-PR/129	1/07/1999	30/06/2003	Improved control of electric arc furnace operations by process modelling	TGS2	21411 EN	2004
7210-PR/130	1/07/1999	30/06/2002	Mechanical & metallurgical study & modeling of the fragmentizing of end of life goods in a scrap shredder	C1	20894 EN	2003
7210-PR/131	1/07/1999	30/06/2002	Neuro-fuzzy systems to improve the control of electric arc furnace process	C1	20944 EN	2003
7210-PR/132	1/07/1999	30/06/2002	Improving the productivity of electric arc furnaces	C1	20803 EN	2003
7210-PR/133	1/07/1999	31/12/2002	Consistent BOS performance	C1	20881 EN	2003
7210-PR/134	1/07/1999	30/06/2001	Inclusion floating process for super clean steels	C1	20597	
7210-PR/135	1/07/1999	30/06/2002	Production of EAF steels with low contents in N2 and S through vacuum treatment	C2	20945 EN	2003

7210-PR/136	1/07/1999	30/06/2002	Characterisation and optimisation of ladle stirring systems for the steelmaking industry	C2	20946 EN	2003
7210-PR/137	1/07/1999	30/06/2003	Improvement of special steel production by use of "endless lining" system for monolithic ladle linings	TGS2	21634 EN	2005
7210-PR/138	1/09/1999	31/08/2002	Chromium free alternative refractory for the lining of rh/dh vessels	C2	21335 EN	2004
7210-PR/139	1/07/1999	30/06/2002	New approaches of the initial solidified shell formation mechanisms in the continuous casting mold	C3	20947 EN	2003
7210-PR/140	1/07/1999	30/06/2003	New secondary cooling patterns for peritectic and micro-alloyed steel	TGS3	21445 EN	2004
7210-PR/141	1/07/1999	31/12/2002	Castability & surface quality of steels microalloyed with Ti or TiNb in continuous casting of slabs, thin slabs and beam blanks	C3	20812 EN	2003
7210-PR/142	1/07/1999	31/12/2002	Detection and measurement of asymmetric flow in the mould and assessment of its effect on product quality of continuously cast slabs	C3	20887 EN	2003
7210-PR/143	1/07/1999	30/06/2002	New methodological approach to selective oxidation	D1	21144 EN	2004
7210-PR/144	1/07/1999	30/06/2002	New ways to improve longitudinal temperature homogeneity of slabs in reheating furnaces	D1	21334 EN	2004
7210-PR/145	1/07/1999	31/12/2003	Scale control when direct rolling	TGS3	21417 EN	2004
7210-PR/146	1/07/1999	31/12/2002	Influence of pickling parameters on zinc coating & cold rolling	D2	20893 EN	2003
7210-PR/147	1/07/1999	30/06/2002	Heavy reductions on first stands of a tandem cold mill	D2	20929 EN	2003
7210-PR/148	1/07/1999	30/06/2002	Application of information technologies in the optimisation of roll shop department programming	D2	20930 EN	2003
7210-PR/149	1/07/1999	30/06/2002	New contactless system to detect surface shape defects in strip rolling facilities based on fast thermography and neural computing	D2	20878 EN	2003
7210-PR/150	1/07/1999	30/06/2002	Development of multiple applications based on new magnetic sensors in steel industries	D2	20931 EN	2003
7210-PR/151	1/07/1999	31/12/2002	Multivariable command & control of thickness profile, camber & flatness by use of topometrical measurements & hybrid models for heavy plate mills	D2	20932 EN	2003
7210-PR/152	1/07/1999	31/12/2002	Simulating the use of lubricants during cold rolling: modelling the interdependence between lubricant properties and rolling performance	D2	20933 EN	2003
7210-PR/153	1/07/1999	31/12/2002	Investigation of the formation, constitution & properties of scale formed during the finishing rolling, cooling & coiling of thin hot	D2	21128 EN	2003

strips						
7210-PR/154	1/07/1999	30/06/2002	Stainless steel cold rolling with emulsion	D2	20934 EN	2003
7210-PR/155	1/07/1999	30/06/2003	Improvement of rolled strip surface & geometry by advanced automatic diagnosis of surface defects & optimisation of friction in the roll gap	TGS4	21333 EN	2004
7210-PR/156	1/07/1999	30/06/2003	The design & control of strip cooling systems by use of advanced modelling techniques allied to practical measurements	TGS4	21246 EN	2004
7210-PR/157	1/07/1999	30/06/2002	Pre-setting improvement of skin passing concerning flatness and reduction combined with defined strip surface texture by hybrid modelling techniques	D2	20935 EN	2003
7210-PR/158	1/07/1999	30/06/2002	Aspects on recrystallization-precipitation interaction in microalloyed steels	D3	20936 EN	2003
7210-PR/159	1/07/1999	30/06/2002	Influence of the heterogeneity in solidification microstructure on the hot rolling behaviour of stainless steels	D3	20937 EN	2003
7210-PR/160	1/07/1999	30/06/2002	Development of methods for the characterisation & modelling of precipitation in steels	D3	20938 EN	2003
7210-PR/161	1/07/1999	30/06/2002	Optimization of microstructure in multiphase steels containing retained austenite	D3	21131 EN	2003
7210-PR/162	1/07/1999	31/12/2002	Control of the precipitation behaviour during integrated casting & rolling processes	D3	20813 EN	2003
7210-PR/163	1/07/1999	30/06/2002	Improvement of cold rolled products by computer assisted metallurgical modelling	D3	21136 EN	2003
7210-PR/164	1/07/1999	31/12/2002	The prediction of the mechanical properties of hot rolled strip products by the means of hybrid methods	D3	20939 EN	2003
7210-PR/165	1/07/1999	31/12/2002	Strain/transformation interaction & mechanical behaviour during intercritical rolling	D3	20879 EN	2003
7210-PR/166	1/07/1999	31/12/2002	Property models for mixed microstructures	D3	20880 EN	2003
7210-PR/167	1/07/1999	30/06/2000	Ultra-fine steel flat products	D3	20225	
7210-PR/168	1/07/1999	30/06/2002	Improved production control through rapid characterization of non-metallic inclusions in steel	E	21627 EN	2004
7210-PR/169	1/07/1999	30/06/2003	Improved detection of radioactivity in scrap	TGS9	21629 EN	2005
7210-PR/170	1/07/1999	30/06/2002	Control of CO-postcombustion inside EAF with FTIR (fourier transformed infrared) - spectroscopy system	E	21138 EN	2004
7210-PR/171	1/07/1999	30/06/2002	Implementation of an assessment and analysing system for the utilisation of a factory wide product quality database	T4	20927 EN	2003

7210-PR/172	1/07/1999	30/06/2003	Surface inspection of hot rolled rails	T4	21145 EN	2004
7210-PR/173	1/07/1999	30/06/2002	Spray Formed States of High Alloyed Steels	F3	20948 EN	2003
7210-PR/174	1/07/1999	30/06/2002	Improvement in constitutive equations for forming of austenitic stainless steel sheets	F3	21143 EN	2004
7210-PR/175	1/07/1999	31/12/2002	Impact of scrap use on the properties of hot-work tool steels	F3	20906 EN	2003
7210-PR/176	1/07/1999	30/06/2002	Stainless steels in bus constructions	F3	20884 EN	2003
7210-PR/177	1/09/1999	31/12/2002	Improvement of weld properties of high nitrogen alloyed stainless steels	F3	20949 EN	2003
7210-PR/178	1/07/1999	30/06/2002	Clarification of hydrogen trap formation mechanism in Al-ki and IF steels for vitreous enamelling-Evaluation of analytical techniques for determination of fish scale susceptibility	F4	20950 EN	2003
7210-PR/179	1/07/1999	30/06/2003	Manufacturing guidelines when using ultra high strength steels in automotive applications	TGS7	21909 EN	2005
7210-PR/180	1/07/1999	31/12/2002	Contact fatigue of rails under severe conditions	F5	21137 EN	2004
7210-PR/181	1/07/1999	31/12/2002	Fracture avoidance in laser welded thick structural steel plates with yield strength between 235 MPa and 890 MPa	F5	20951 EN	2003
7210-PR/182	1/07/1999	31/12/2002	An energy balance approach for crack arrest	F5	20952 EN	2003
7210-PR/183	1/09/1999	31/08/2002	Lateral torsional buckling in steel & composite beams	F6	20888 EN	2003
7210-PR/184	1/07/1999	31/12/2002	Natural fire safety concept - the development and validation of a cfd-based engineering methodology for evaluating thermal action on steel and composite structures	TGS8	21444 EN	2004
7210-PR/185	1/09/1999	31/08/2002	Influence of surface characteristics of tinplate for food cans on adhesion properties of coating	F7	20908 EN	2003
7210-PR/186	1/09/1999	31/08/2002	Improvement of resistance to stress corrosion of tinplate cans for foodstuff	F7	20909 EN	2003
7210-PR/187	1/07/1999	30/06/2003	Jet vapour deposition (JVD): extensive product study and first evaluation of coupling with a processing line	TGS5	21783 EN	2005
7210-PR/188	1/07/1999	30/06/2002	Influence of additive elements on galvanising of high strength steels	F7	20954 EN	2003
7210-PR/189	1/07/1999	30/06/2002	Investigations of damaging mechanisms of coil-coating steel sheet during forming in order to enhance the performance predictability of finished parts	F7	21135 EN	2003

7210-PR/190	1/07/1999	30/06/2002	Investigations of the kinetics of surface treatments by advanced methods	F7	21635 EN	2005
7210-PR/191	1/07/1999	31/12/2002	Development of alternative technologies for off-site applied intumescent coatings	F7	21216 EN	2004
7210-PR/192	1/07/1999	30/06/2003	Hot dip coating: analysis of the snout area	TGS5	21997 EN	2005
7210-PR/193	1/07/1999	30/06/2002	Environmentally friendly coated tinplate for food cans	F7	21129 EN	2003
7210-PR/194	1/07/2000	31/12/2003	Optimisation of sinter plant operating conditions and BF burden material resources using advanced multivariate statistics	TGS1	22444 EN	2006
7210-PR/195	1/07/2000	31/12/2003	Characterization, modelling & validation of the impact of iron and steelmaking slags used in road construction on groundwater	TGS9	21630 EN	2005
7210-PR/196	1/07/2000	31/12/2003	Productivity & quality of pulverized coal for increasing blast furnace injections	TGS1	21728 EN	2005
7210-PR/197	1/07/2000	31/12/2003	Optimisation of blast furnace raceway at high injection rates: formation & stability of the raceway, effect on blast furnace operation	TGS1	21691 EN	2005
7210-PR/198	1/07/2000	30/06/2003	Pre-processing of metallurgical wastes by direct reduction for recovery of iron, zinc and lead	TGS1	21693 EN	2005
7210-PR/199	1/07/2000	31/12/2003	Investigation of accretion formation in blast furnace shaft	TGS1	21433 EN	2004
7210-PR/200	1/07/2000	31/12/2003	Effects of operational factors on the formation of toxic organic micropollutants in EAF steelmaking	TGS2	21432 EN	2004
7210-PR/202	1/07/2000	30/06/2003	Evaluation of air tight furnace technology (reduction of air ingress in EAF)	TGS2	EUR 21692	2005
7210-PR/203	1/07/2000	30/06/2003	Efficient utilisation of waste products from secondary steelmaking as flux materials for electric arc furnace	TGS2	21343 EN	2004
7210-PR/204	1/07/2000	31/12/2003	Innovative continuous on-line determination of steel melt temperature by direct optical measurement in the melt	TGS2	21428 EN	2004
7210-PR/205	1/07/2000	30/06/2003	Characterisation of the scrap density	TGS2	21628 EN	2005
7210-PR/206	1/07/2000	31/12/2003	The determination & elimination of the effect of anti-oxidants in magnesia-carbon bricks on steel composition and inclusion formation	TGS2	21446 EN	2004
7210-PR/207	1/07/2000	30/06/2003	Operation and control of vacuum circulation (RH) process with lance oxygen input	TGS2	21435 EN	2004
7210-PR/208	1/07/2000	30/06/2003	Advanced strategies for alloying processes in steelmaking ladles	TGS2	21344 EN	2004

7210-PR/209	1/07/2000	31/12/2003	Improving surface quality of continuously cast semis by an understanding of shell development and growth	TGS3	21340 EN	2004
7210-PR/210	1/07/2000	30/06/2003	Developm. of a model predicting inclusion precipitation in nozzles based on chemical compos. & process parameters such as casting rate, liquid temper., nozzles design and slag comp	TGS3	21442 EN	2004
7210-PR/211	1/07/2000	31/12/2003	Quality improvement for continuously cast steel products by swirling flow strategies	TGS3	21447 EN	2004
7210-PR/212	1/07/2000	31/12/2003	Investigation on the mechanisms of gas bubbles/inclusions entrapment in the solidified steel shell	TGS3	21422 EN	2004
7210-PR/213	1/07/2000	30/06/2004	Precipitation of nitrides and carbides during solidification and cooling	TGS3	22060 EN	2006
7210-PR/214	1/07/2000	31/12/2003	Tailoring scale characteristics during steel processing	TGS4	21427 EN	2004
7210-PR/215	1/07/2000	30/06/2003	New thermo-mechanically processed wire rods for drawing and cold heading applications (Thermorod)	TGS4	21633 EN	2005
7210-PR/216	1/07/2000	31/12/2003	Investigation into processing changes at the hot mill coiler entry & when coiling to improve visual & latent shape in the final cold coil	TGS4	22057 EN	2006
7210-PR/217	1/07/2000	30/06/2003	Assessment and synthesis of the most relevant tribological tests for the characterization of cold rolling lubricants	TGS4	22058 EN	2006
7210-PR/218	1/07/2000	30/06/2003	Strip stability and speed control on submerged rolls	TGS5	21788 EN	2005
7210-PR/219	1/07/2000	31/12/2004	Sticking & scratching problems after batch annealing, including coil compression stresses effects	TGS4	22059 EN	2006
7210-PR/220	1/07/2000	30/06/2003	Characterisation and control of roughness transfer in temper rolling of HSS grades	TGS4	21416 EN	2004
7210-PR/221	1/07/2000	31/12/2003	Diagnosis assistance for process performance, dynamic plant condition and periodic quality defects in the cold rolling area	TGS4	21413 EN	2004
7210-PR/222	1/07/2000	31/12/2003	Development of hot rolled high strength steels with inherent corrosion resistance	TGS7	21434 EN	2004
7210-PR/223	1/07/2000	30/06/2004	Steel modelling workbench	TGS6	22012 EN	2005
7210-PR/224	1/07/2000	30/06/2003	New concepts for understanding & modelling the influence of austenite state on phase transformations in hot rolled steels	TGS6	21632 EN	2005
7210-PR/225	1/07/2000	30/06/2003	Study of ferrite grain growth & transformation mechanisms, at different stages during steel processing, aided by the use of modern OIM techniques	TGS6	21430 EN	2004
7210-PR/226	1/07/2000	30/06/2003	Precipitation engineering	TGS6	21437 EN	2004

7210-PR/227	1/07/2000	30/06/2003	Development of new DDQ grade combining low ageing sensitivity, BH and higher n-value	TGS7	21438 EN	2004
7210-PR/228	1/07/2000	30/06/2004	On-line measurement of magnetic properties of electrical steel strip	TGS9	21932 EN	2005
7210-PR/229	1/07/2000	30/06/2003	Assessment of steel inclusions cleanliness by mixed NDT methods	TGS9	21729 EN	2005
7210-PR/230	1/07/2000	30/06/2003	New developments for the quantification of non conductive materials (slags, inclusions) in steel industry by optical emission spectrometries (laser, spark)	TGS9	21415 EN	2004
7210-PR/231	1/07/2000	30/06/2003	Fast analysis of production control samples without preparation	TGS9	21694 EN	2005
7210-PR/232	1/07/2000	30/06/2003	GDOES expert system for at-the-line-control of coated steel products	TGS9	21341 EN	2004
7210-PR/233	1/07/2000	31/12/2003	Improved quality of steel sheet by better control and reduction of surface contamination	TGS5	21789 EN	2005
7210-PR/234	1/07/2000	30/06/2003	Implementation of a knowledge based system for control of steelworks waste water treatment plant (Knowater-II)	TGS9	21904 EN	2005
7210-PR/235	1/07/2000	31/12/2003	Advanced process control for biological water treatment plants in steel works	TGS9	21905 EN	2005
7210-PR/236	1/07/2000	30/06/2003	Influence of microstructure on SSC and SOHIC in base materials and welded joints of high strength sour service steels	TGS6	21906 EN	2005
7210-PR/237	1/07/2000	30/06/2003	Improving the machinability of stainless steels	TGS8	21801 EN	2005
7210-PR/238	1/07/2000	30/06/2003	Improvement of duplex stainless steels pickling efficiency	TGS5	21727 EN	2005
7210-PR/239	1/07/2000	31/12/2003	Development of Cr-Mo-V ferritic steels for high temperature hydroprocessing reactors with enhanced behaviour	TGS8	21419 EN	2004
7210-PR/240	1/07/2000	31/12/2003	Critical evaluation of the effect of alloyed nitrogen on the susceptibility of stainless steels to environmentally induced cracking (EiC-Nitrogen)	TGS6	21802 EN	2005
7210-PR/241	1/07/2000	31/12/2003	Development of machinability enhanced tool steels for improved product economy in hard milling	TGS8	21726 EN	2005
7210-PR/242	1/07/2000	31/12/2003	The relative impact performance of (...) and tailor welded blank techniques for optimum mass efficiency	TGS7	21631 EN	2005
7210-PR/243	1/07/2000	30/06/2003	Investigation of the formability (including hydroforming capability), springback & crash resistance of modern high strength steels under development	TGS7	21414 EN	2004
7210-PR/244	1/07/2000	31/12/2002	Material parameters for sheet metal forming simulations by means of optimisation algorithms	F4	20907 EN	2003

7210-PR/245	1/07/2000	31/12/2003	The prediction of HAZ microstructures and properties in structural steel	TGS6	21338 EN	2004
7210-PR/246	1/07/2000	31/12/2003	Performance criteria for cold formed structural steels	TGS6	22056 EN	2006
7210-PR/247	1/07/2000	31/12/2003	Quantitative structure - property relationships for complex bainitic microstructures	TGS6	21245 EN	2004
7210-PR/248	1/07/2000	30/06/2003	Non-destructive evaluation (NDE) of quality characteristics of heavy plates	TGS6	21436 EN	2004
7210-PR/249	1/07/2000	31/12/2003	Probabilistic quantification of safety of a steel structure	TGS8	21695 EN	2005
7210-PR/250	1/07/2000	30/06/2003	Applicability of composite structures to sway frames	TGS8	21913 EN	2005
7210-PR/251	1/07/2000	31/12/2003	Risk-based fire resistance requirements	TGS8	21443 EN	2004
7210-PR/252	1/07/2000	31/12/2003	Novel jointing systems for the automated production of light gauge steel elements	TGS8	21439 EN	2004
7210-PR/253	1/07/2000	31/12/2003	Design rules for cold-formed structural hollow section	TGS8	21973 EN	2005
7210-PR/254	1/07/2000	31/12/2003	Calculation rules of lightweight steel section in fire situation	TGS8	21426 EN	2004
7210-PR/255	1/07/2000	31/12/2003	Corrosion properties of coated, formed & joined non-weldable printed steel for automotive application	TGS5	21626 EN	2004
7210-PR/256	1/07/2000	30/06/2003	Passive/active transitions in cyclic corrosion tests	TGS5	22392 EN	2006
7210-PR/257	1/07/2000	30/06/2003	Surface conditioning for improved hot-dip coating behaviour of modern high strength steels	TGS5	21421 EN	2004
7210-PR/258	1/07/2000	31/12/2003	Long-term durability of adhesively bonded sandwich panels	TGS5	21412 EN	2004
7210-PR/259	1/07/2000	30/06/2004	Development of electrically conductive polymer coatings for coil coated steel sheets	TGS5	21983 EN	2005
7210-PR/261	1/12/2000	31/05/2004	Bath stirring and injection of solids in the BOF using coherent jet technology	TGS2	21336 EN	2004
7210-PR/262	1/07/2001	31/12/2004	Extended blast furnace permeability monitoring	TGS1	21948 EN	2005
7210-PR/263	1/07/2001	31/12/2004	Performance enhancement by measures of bulk mechanics and granulometry on sintering of iron ore	TGS1	22013 EN	2005
7210-PR/264	1/07/2001	31/12/2004	Improved permeability of sinter mix by combined optimisation of feeder system, permeability bars and charging monitoring	TGS1	22379 EN	2006

7210-PR/265	1/07/2001	31/12/2004	Investigation of 3d charging dissymmetries and influence on the blast furnace condition	TGS1	21949 EN	2005
7210-PR/266	1/07/2001	30/06/2003	Radioactive sources in the steelmaking process - Simulation of the distribution of radioactivity having accidentally entered into a steelmaking shop	TGS2	21342 EN	2004
7210-PR/267	1/07/2001	30/06/2004	Sustainable agriculture using blast furnace and steel slags as liming agents	TGS9	22033 EN	2005
7210-PR/268	1/07/2001	30/06/2004	New cooling panels for reduction of heat losses in EAF steelmaking	TGS2	22404 EN	2006
7210-PR/269	1/07/2001	30/06/2004	Improvement of process control and refractory performance of the AOD converter	TGS2	21974 EN	2005
7210-PR/270	1/07/2001	30/06/2004	Improvement of inclusion flotation during RH treatment	TGS2	22388 EN	2006
7210-PR/271	1/07/2001	30/06/2004	In situ, quick sensing system for measurements of process-critical components in steelmaking slags (INQUISSS)	TGS2	22818 EN	2007
7210-PR/272	1/07/2001	30/06/2004	Advanced methods for an improved mould heat transfer control	TGS3	21981 EN	2005
7210-PR/273	1/07/2001	30/06/2004	Mould powder consumption, melting & lubrication and its effect on mould heat transfer & subsequent surface quality of continuously cast slab	TGS3	21907 EN	2005
7210-PR/274	1/07/2001	30/06/2004	Mathematical description of flow and heat transfer in continuous casting machines	TGS3	21930 EN	2005
7210-PR/275	1/07/2001	30/06/2004	Definition of ladle change strategy to avoid slag entrapment and to control inclusion population	TGS2	21971 EN	2005
7210-PR/276	1/07/2001	31/12/2004	Improving the properties of near net shape cast strip containing copper and tin from scrap	TGS3	22076 EN	2006
7210-PR/277	1/07/2001	30/06/2004	In-time rating of continuously cast semis by means of hybrid quality models	TGS3	21984 EN	2005
7210-PR/278	1/07/2001	30/06/2004	Rules base systems for improved monitoring and guidance of reheating furnaces	TGS3	21992 EN	2005
7210-PR/279	1/07/2001	31/12/2004	Optimisation of long product rolling through improved understanding of roll wear and lubrication	TGS4	21908 EN	2005
7210-PR/280	1/07/2001	31/12/2004	Adaptive mill pacing	TGS4	22055 EN	2006
7210-PR/281	1/07/2001	30/06/2004	Improved quality of galvanised products by controlled wiping	TGS5	22377 EN	2006
7210-PR/282	1/07/2001	30/06/2004	Hot dip galvanising: stabilising & cooling the strip in the wiping area	TGS5	22035 EN	2006

7210-PR/283	1/07/2001	30/06/2004	Improved control of mechanical & geometrical properties of steel strips by thermal profile determination all along the annealing line	TGS5	22034 EN	2006
7210-PR/284	1/07/2001	31/12/2004	Optimising the rolling process (pass scheduling) to avoid roll spalling and surface defects	TGS4	22054 EN	2006
7210-PR/285	1/07/2001	31/12/2004	Improvement in throughput and product quality of continuous annealing lines by extended models and advanced control	TGS5	22078 EN	2006
7210-PR/286	1/07/2001	31/12/2004	Yield, quality & throughput increase by optimising the transfer bar & finished strip geometry in hot strip mills	TGS4	21931 EN	2005
7210-PR/287	1/07/2001	30/06/2004	Grain refinement of cold rolled microalloyed steels by rapid transformation annealing	TGS6	22008 EN	2005
7210-PR/288	1/07/2001	30/06/2004	Ultra fine grained steel by innovative deformation cycles	TGS6	22007 EN	2005
7210-PR/289	1/07/2001	31/12/2005	Grain refinement by intragranular ferrite nucleation on precipitates in microalloyed steels	TGS6	22451 EN	2006
7210-PR/290	1/07/2001	30/06/2004	Bainitic steels for new rail materials	TGS8	22081 EN	2006
7210-PR/291	1/07/2001	31/12/2004	Constitutive modelling for complex loading in metal forming processes	TGS6	22011 EN	2005
7210-PR/292	1/07/2001	30/06/2004	On-line prediction of the mechanical properties of hot rolled strips	TGS6	21978 EN	2005
7210-PR/293	1/07/2001	30/06/2004	Heavy warm rolling for the production of thin hot strips	TGS6	21946 EN	2005
7210-PR/294	1/07/2001	30/09/2004	New approaches to non-destructive characterisation of microstructure & applications to on-line control of steel quality (NANDACS)	TGS9	21977 EN	2005
7210-PR/295	1/07/2001	31/12/2004	New metallurgy for microalloyed TRIP steels	TGS6	22391 EN	2006
7210-PR/296	1/07/2001	30/06/2004	Development of techniques for the production of glassy standard materials for the analysis of slags by spectroscopic methods	TGS9	21994 EN	2005
7210-PR/297	1/07/2001	30/06/2004	High spatial resolution analysis of steel samples using laser ablation ICP-MS	TGS9	21995 EN	2005
7210-PR/298	1/07/2001	31/12/2004	Fast characterisation of steel cleanness by advanced mathematical analysis of spark and laser source optical emission data	TGS9	22079 EN	2006
7210-PR/299	1/07/2001	31/12/2004	Tracing of airborne dust	TGS9	22457 EN	2006
7210-PR/300	1/07/2001	30/06/2004	In-line assessment of steel cleanness during the secondary steel making process	TGS9	22032 EN	2005
7210-PR/301	1/07/2001	31/12/2004	Eco-efficient technology for recovering acids and metals from rinse water in stainless steel pickling	TGS9	21947 EN	2005

7210-PR/302	1/07/2001	31/12/2004	On-line slag analysis utilizing contact free microwave technology	TGS9	21787 EN	2005
7210-PR/303	1/07/2001	31/12/2004	Improving the fatigue performance of welded stainless steels	TGS8	22809 EN	2006
7210-PR/304	1/07/2001	31/12/2004	Methods of improving the deep drawing properties of austenitic stainless steels	TGS6	21979 EN	2005
7210-PR/305	1/07/2001	31/12/2004	Stainless steels for wet conditions in municipal incineration and combustion plants	TGS8	22082 EN	2006
7210-PR/306	1/07/2001	31/12/2004	Technically and commercially viable alternatives to lead as machinability enhancers in steels used for automotive components manufacture	TGS7	21912 EN	2005
7210-PR/307	1/07/2001	31/12/2003	High volume forming of stainless steel with easy to clean lubricants	TGS7	22010 EN	2005
7210-PR/308	1/07/2001	30/06/2005	Development of a cost effective low Ni austenitic steel with superior high temperature properties up to 950°C (CELNIS)	TGS6	22445 EN	2006
7210-PR/309	1/07/2001	30/06/2004	Improved fatigue strength of HSS tailored blanks	TGS7	22036 EN	2006
7210-PR/310	1/07/2001	30/06/2004	Improvement of formability of continuously organic coated coils by controlling ageing behaviour of low carbon steel substrates	TGS7	21980 EN	2005
7210-PR/311	1/07/2001	30/06/2004	Evaluation of dynamic fracture resistance of LASER & resistance spot welds for automotive applications	TGS7	22006 EN	2005
7210-PR/312	1/07/2001	30/06/2004	Quantitative correlation of fracture toughness and microstructure for high strength steels and their welds	TGS6	22045 EN	2006
7210-PR/313	1/07/2001	30/06/2005	Application of high strength steel plates to welded deck components for ships and bridges subjected to medium/high loads	TGS8	22571 EN	2006
7210-PR/314	1/07/2001	30/06/2004	Generalisation of criteria for floor vibrations for industrial, office, residential and public buildings and gymnastic halls	TGS8	21972 EN	2005
7210-PR/315	1/07/2001	31/12/2003	Large web openings for service integration in composite floors	TGS8	21345 EN	2003
7210-PR/316	1/07/2001	30/06/2004	Earthquake resistant design. The "INERD" project	TGS8	22044 EN	2006
7210-PR/317	1/07/2001	31/12/2004	Design method for steel structures in marine environments including the corrosion behaviour	TGS8	22433 EN	2006
7210-PR/318	1/07/2001	30/06/2004	Structural design of cold worked austenitic stainless steel	TGS8	21975 EN	2005
7210-PR/319	1/07/2001	30/06/2004	Enhancement of stainless and pre-painted steel sheets aesthetic performance by means of scratch and fingerprint resistant coatings	TGS5	22068 EN	2006

7210-PR/320	1/07/2001	31/12/2004	Soluble salt contamination on blast cleaned surfaces and the effect on the durability of subsequently applied coatings	TGS5	21910 EN	2005
7210-PR/321	1/07/2001	31/12/2004	Prediction of durability performance of coil-coated steel used in the building industry	TGS5	21996 EN	2005
7210-PR/322	1/07/2001	30/06/2004	A mechanistic study of wetting and dewetting during hot dip galvanizing of high strength steels	TGS5	21993 EN	2005
7210-PR/323	1/07/2002	31/12/2005	Improvement of blast furnace process control by combined on-line monitoring of liquid level in the hearth and tapping flow rates	TGS1	22442 EN	2006
7210-PR/324	1/07/2002	31/12/2005	Changes in the microstructure of coke while passing the blast furnace with respect to the quality of the charged coke and behaviour of nut coke in the blast furnace	TGS1	22439 EN	2006
7210-PR/325	1/07/2002	30/06/2005	Micropollutant emissions (heavy metals, PCB, PAH, BTEX) from sinter plants and possible reduction strategies	TGS1	22443 EN	2006
7210-PR/326	1/07/2002	31/12/2005	Alternative processing of sinter plant recycling materials	TGS1	22974 EN	2007
7210-PR/327	1/07/2002	31/12/2005	Hearth protection in blast furnace operation by injection of TiO ₂ -materials	TGS1	22821 EN	2007
7210-PR/328	1/07/2002	30/06/2005	Development of operating conditions to improve chemical energy yield and performance of dedusting in airtight EAF	TGS2	22973 EN	2007
7210-PR/329	1/07/2002	30/06/2005	De-oxidation practice and slag ability to trap non-metallic inclusions and their influence on the castability and steel cleanliness	TGS2	23194 EN	2007
7210-PR/330	1/07/2002	30/06/2005	Development of advanced methods for the control of ladle stirring process	TGS2	22988 EN	2007
7210-PR/331	1/07/2002	31/12/2005	Improved control of inclusion chemistry and steel cleanness in the ladle furnace	TGS2	23593	2008
7210-PR/332	1/07/2002	31/12/2005	Optimisation and evaluation of different secondary metallurgy routes to achieve high quality strip steel	TGS2	23888	2009
7210-PR/333	1/07/2002	31/12/2005	Improvements to billet surface quality	TGS3	22440 EN	2006
7210-PR/334	1/07/2002	30/06/2005	Optimisation of strip casting conditions and surface conditions for coating	TGS3	22817 EN	2007
7210-PR/335	1/07/2002	30/06/2005	Extension of advanced monitoring and control techniques at continuous casting process	TGS3	22815 EN	2007
7210-PR/336	1/07/2002	30/06/2005	Control of the strip surface oxide layer for pickle-free hot rolled steel	TGS4	22852 EN	2007
7210-PR/337	1/07/2002	31/12/2005	Development of new control strategies for enhanced use of automatic flatness control in cold rolling	TGS4	23193 EN	2007

7210-PR/338	1/07/2002	31/12/2005	Control of sheet surface defects and deep drawing properties in final strip production steps	TGS4	22566 EN	2006
7210-PR/339	1/07/2002	31/12/2005	Closed loop automatic shape and residual stress control during levelling	TGS4	22824 EN	2007
7210-PR/340	1/07/2002	31/12/2005	Back-calculation of flow curves and width control during cold rolling	TGS4	22458 EN	2006
7210-PR/341	1/07/2002	30/06/2005	On-line monitoring of gas jet wiping in hot dip coating lines	TGS5	23192 EN	2007
7210-PR/342	1/07/2002	31/12/2005	Improvement of quality management in cold rolling and finishing area by combination of failure mode and effects analysis with data-based approaches	TGS4	22565 EN	2006
7210-PR/343	1/07/2002	31/12/2005	Advanced modelling of lateral flow and residual stresses during flat rolling	TGS4	22452 EN	2006
7210-PR/344	1/07/2002	30/06/2005	Nanoprecipitates in steel-NANOPREC	TGS6	22376 EN	2006
7210-PR/345	1/07/2002	30/06/2005	Novel high strength, high toughness carbide-free bainitic steels	TGS6	22450 EN	2006
7210-PR/346	1/07/2002	30/06/2005	High strength long products with improved toughness and fatigue resistance	TGS8	23855	2008
7210-PR/347	1/07/2002	31/12/2005	Modelling of the impact of chemical composition on important metallurgical processes during cold strip production	TGS6	22453 EN	2006
7210-PR/348	1/07/2002	31/12/2005	Transformation behaviour of steel in the in-line hot rolling steel processing	TGS6	22564 EN	2006
7210-PR/349	1/07/2002	30/06/2005	Suppression of banded structure and refinement of the microstructure of high strength cold rolled steels	TGS6	22830 EN	2007
7210-PR/350	1/07/2002	30/06/2005	Characterisation and modelling of strain induced precipitation	TGS6	22431 EN	2006
7210-PR/351	1/07/2002	30/06/2005	Metallurgical aspects of the compact reheating treatment of hot rolled strips before coiling	TGS3	22831 EN	2007
7210-PR/352	1/07/2002	30/06/2005	Prediction of the micro-structure development in HSS-grades during continuous annealing and the resulting of mechanical properties	TGS6	22436 EN	2006
7210-PR/353	1/07/2002	30/06/2005	Production of high quality formable grades in an ultra short annealing processing line	TGS6	22437 EN	2006
7210-PR/354	1/07/2002	30/06/2005	Production of low carbon bainitic steels for structural applications	TGS8	22434 EN	2006
7210-PR/355	1/07/2002	30/06/2005	Optimisation of the influence of boron on the properties of steel	TGS6	22446 EN	2006

7210-PR/356	1/07/2002	31/12/2006		Further investigations & development of vacuum ultra violet emission spectrometry for the determination of low levels of C, N, O and S	TGS9	23880	2009
7210-PR/357	1/07/2002	31/12/2005		Prediction of hydrogen content in long products based on a new mathematical model and an innovative hydrogen solid-state sensor	TGS9	22435 EN	2006
7210-PR/358	1/07/2002	31/12/2005		Membrane-bioreactor system for treatment of nitrates in pickling process waste water	TGS9	22430 EN	2006
7210-PR/359	1/07/2002	30/06/2005		Quantitative phase analysis of multiphase steels-PHAST	TGS9	22387 EN	2006
7210-PR/360	1/07/2002	30/06/2005		On-line characterisation of zinc coatings	TGS9	22827 EN	2007
7210-PR/361	1/07/2002	30/06/2005		Improvement of the surface performance of stainless steel regarding health and food industry applications	TGS5	22381 EN	2006
7210-PR/362	1/07/2002	30/06/2005		Extending the durability of stainless steels in water systems under microbiological corrosion conditions	TGS6	22819 EN	2007
7210-PR/363	1/07/2002	31/12/2005	DOLTRAC	Development of lightweight train and metro cars by using ultra high strength stainless steels	TGS7	22837 EN	2007
7210-PR/364	1/07/2002	30/06/2005		Evaluation of the capability of spray forming for the production of very high alloyed steels without necessity of heavy hot working	TGS6	22438 EN	2006
7210-PR/365	1/07/2002	31/12/2005		Influence of thermal cycles on properties of duplex stainless steels	TGS6	23310 EN	2008
7210-PR/366	1/07/2002	30/06/2005		Super martensitic stainless steels with improved corrosion properties	TGS6	22813 EN	2007
7210-PR/367	1/07/2002	30/06/2007		Corrosion resistance of stainless steel pipes in soil	TGS6	23586	2008
7210-PR/368	1/07/2002	30/06/2005		Development of high strength steel sheet products by back-annealing	TGS7	22811 EN	2007
7210-PR/369	1/07/2002	31/12/2005		Crash relevant properties & dynamic denting of pre-strained or pre-loaded high strength steels for automotive parts	TGS7	22380 EN	2006
7210-PR/370	1/07/2002	30/06/2005		Control and exploitation of the bake-hardening effect in multiphase high strength steels	TGS7	22448 EN	2006
7210-PR/371	1/07/2002	31/12/2005		Improved constitutive equations for forming processes including ductility criteria	TGS6	22836 EN	2006
7210-PR/372	1/07/2002	30/06/2005	HYDROTEST	Investigation of the influence of the pre-hydroforming processes and development of characterisation methods for the testing of steel semi-products for hydroforming	TGS7	22447 EN	2006
7210-PR/373	1/07/2002	31/12/2005		Fatigue guidelines for thin high strength steel joint structures	TGS7	22449 EN	2006

7210-PR/374	1/07/2002	31/12/2005	Assessment and prediction of springback behaviour for high strength steels	TGS7	22835 EN	2007
7210-PR/375	1/07/2002	30/06/2005	Development of a fracture toughness quality system tool applicable for steel producers and steel users of heavy plates, profiles and weldments	TGS6	22454 EN	2006
7210-PR/376	1/07/2002	30/06/2005	Role of steel composition and welding parameters in the improvement of fatigue behaviour of high strength welded rails	TGS7	22853 EN	2007
7210-PR/377	1/07/2002	31/12/2005	Seismic design of light gauge steel framed buildings	TGS8	22810 EN	2006
7210-PR/378	1/07/2002	30/06/2005	Fire safety of industrial halls and low-rise buildings: realistic fire design, active safety measures, post-local failure simulation and performance based requirements	TGS8	22568 EN	2006
7210-PR/379	1/07/2002	30/06/2005	Efficient lifting equipment with extra high strength steel	TGS8	22569 EN	2006
7210-PR/380	1/07/2002	31/12/2005	Development of design rules for the fire behaviour of external steel structures	TGS8	22570 EN	2006
7210-PR/381	1/07/2002	31/12/2005	Euro-build in steel: evaluation of client demand, sustainability and future regulations on the next generation of building design in steel	TGS8	22959 EN	2007
7210-PR/382	1/07/2002	31/12/2005	Multifunctional passivation methods for hot dip galvanized steel	TGS5	22378 EN	2006
7210-PR/383	1/07/2002	30/06/2005	Tailored thin plasma polymers for surface engineering of coil coated steel	TGS5	22432 EN	2006
7210-PR/384	1/07/2002	31/12/2006	Low volatile organic compound coatings for corrosion protection of steel structures	TGS5	22990 EN	2007
7210-SA/129	1/07/1996	30/06/1999	Use of high strength steel S460	F6	20104	
7210-SA/525	1/07/1996	30/06/1999	Modelling and predesign of steel and composite structures	F6	20323	
7210-SA/526	1/07/1996	30/06/1999	Development of a new soil investigation procedure determining the installation of piling and the impact on the environment	F6	20334	
7210-SA/842	1/07/1996	31/12/1999	Development of the use of stainless steel in construction	F6	20030	2000
7210-SA/902	1/09/1995	31/01/1998	Low-energy steel house for cold climates	F6	20031	2000
7210-TS/101	1/07/1995	31/12/1998	New functional coating on steel sheet obtained by metallic pre-coating followed by galvannealing	F7	20044	1999
7210-TS/102	1/10/1995	30/09/1999	Crystallographic texture and microstructure at the surface of steel substrates and metallic coatings	F7	20042	
7210-TS/104	1/07/1996	31/12/1999	Development of a new pickling technique for improved properties of high-grade steel surfaces	F3	19980	
7210-TS/106	1/07/1996	31/12/1999	Investigation of the delamination of polymer-coated zinc and steel surfaces with the scanning Kelvinprobe in a climatic cycle test	F7	20348	

7210-TS/203	1/07/1996	30/06/1999	Galvannealing of high strength steels	F7	20337	
7210-TS/403	1/07/1995	30/06/1998	New aluminized steel strip with improved hot oxidation and corrosion performances	F7	20049	2000
7210-TS/404	1/07/1995	31/12/1998	Development of galvannealing for the domestic appliance, construction and other markets	F7	20041	1999
7210-TS/408	1/07/1996	30/06/1999	NOCHROME: Cr-replacing coatings obtained by physical vapour deposition	F7	20040	2000
7210-TS/803	1/07/1995	31/12/1998	Role of physical and chemical characteristics of steel substrate and metallic coating on adhesion and appearance of painted hot dip galvanized and galvannealed products	F7	20045	1999
7210-TS/805	1/07/1996	31/12/1999	Enhancement of pre-treatment technology to improve performance of metallic coated sheet steels	F7	20036	
7210-TS/807	1/07/1996	31/12/1999	Investigation of the enamelling characteristics of IF steels	F7	20339	
7210-TS/808	1/10/1996	31/03/2000	Characterisation of heavy gauge galvannealed strip	F7	20335	
7210-TS/809	1/07/1996	31/12/1999	Elevated and low temperature performance of coated strip steel products	F7	20037	2000
7215-AA/106	1/04/1995	31/03/1998	Development of a highly productive strip casting concept	T2	18918	1998
7215-AA/203	1/07/1995	30/06/1999	Production of low sulphur sponge iron using coal as a reducing agent	T1	19418	2000
7215-AA/304	1/07/1995	31/12/1998	Pilot ultrasonically-assisted continuous billet casting machine	T2	20072	2000
7215-AA/305	1/04/1996	31/03/2000	Development of a fully closed continuous casting machine for the high speed casting of prime quality steels	T2	20070	
7215-AA/403	1/07/1995	31/12/1998	Economic advantages of integrated processing of steelworks EAF wastes, mainly containing Zn,Pb,Cd,FeOx,Zn ferrite and others, with total recovery	T1	19393	
7215-AA/404	1/07/1995	31/12/1998	Contiarc DC electric arc furnace	T1	18814	
7215-AA/404	1/07/1995	31/12/1998	Contiarc DC electric arc furnace	T1	18814	1998
7215-AA/408	1/07/1996	30/06/1998	Analysis of thermal and chemical relationships between cyclone and converter in a one-reactor smelting reduction Process Development Unit (PDU)	T1	18813	1998
7215-AA/802	1/07/1995	31/12/1998	Pioneer production unit for near-liquidus casting of bloom sections	T2	20300	
7215-AA/803	1/07/1996	30/06/2000	Improved cleaning of waste gases and recycling of BOF dusts	T1	20286	
7215-AA/903	1/07/1996	30/06/1998	The in-plant by-product melting (IPBM) process	T1	20068	1999
7215-CA/116	1/04/1996	31/03/2000	Pilot and demonstration project for upgrading iron oxides to a high quality raw material	T1	20287	

7215-CA/118	1/07/1996	30/06/2000	Pilot and demonstration project for processing iron oxides derived from HCl regeneration through rapid thermal treatment in a vertical shaft furnace	T1	20290	
7215-CA/204	1/07/1996	31/10/1998	Ultra fast cooling in the hot strip mill (stage 1)	T3	20077	1999
7215-CA/309	1/07/1996	30/06/1999	Improvement in working conditions, productivity, and safety in the cold rolling of stainless steels	T3	20081	
7215-CA/310	1/04/1996	30/09/2000	Investigation of a novel technique for controlling flatness in cold rolling and skin pass mills	T3	20303	
7215-CA/605	1/04/1996	20/01/2001	Implementation of a new technology for thickness, flatness and crown control in the finishing section of a hot strip mill: the dynamic shape roll	T3	20359	
7215-EA/801	1/07/1995	31/12/1998	Shape and metallurgical control in skin pass rolling of hot rolled coil	T3	20080	2000
7215-EA/802	1/07/1995	31/12/1998	Pilot Demonstration of use of ultrasonic activation in the pickling process	T3	20079	2000
7215-EA/803	1/07/1995	31/12/1998	Straightening of large beams	T3	20078	2000
7215-PP/001	1/07/1997	31/12/2000	Improvement of blast furnace pellet quality through an integrated analysis of the production chain and process modelling	T1	20291	
7215-PP/002	1/07/1997	31/12/2000	Blast furnace tuyere injection of iron and steelmaking by-products	T1	20288	
7215-PP/003	1/07/1997	31/12/2001	Continuous regeneration plant for exhausted solutions from stainless steel pickling process (HNO ₃ -FREE)	T3	20302	
7215-PP/004	1/07/1997	31/12/2000	Optimal strategy to minimise central segregation during billet casting of high carbon grades	T2	20299	
7215-PP/005	1/07/1997	31/12/2001	Development of a pioneer production unit incorporating vacuum tundish technology for commercial slab casting operations	T2	20593	
7215-PP/006	1/04/1997	31/03/1998	Development of the direct strip casting process	T2	19384	1999
7215-PP/007	1/04/1997	30/09/2000	Test of high speed fully multiroller tension leveller on tin plate coating lines	T3	20293	
7215-PP/008	1/07/1997	31/12/2000	Development and implementation of intelligent systems for real time optimisation of product quality in rolling and process lines	T4	20305 EN	
7215-PP/009	1/07/1997	31/12/2000	Pilot plant for the contactless detection of internal and surface flaws in hot steel products	T4	20294	
7215-PP/010	1/07/1997	31/12/2001	Demonstration of pre-fabricated modular steel construction in the renovation of multi-storey residential buildings	F6	20595 EN	
7215-PP/012	1/07/1998	30/06/2001	High purity zinc and ferroalloys recovery from EAF dusts through a combined pyro-hydrometallurgical treatment	T1	20505 EN	
7215-PP/013	1/04/1998	30/06/2001	Further development of the direct strip casting process	T2	20598	2002

7215-PP/014	1/07/1998	30/06/2002	Development of high productivity casting of bars with ultrafine solidification microstructure	T2	21140 EN	2004
7215-PP/015	1/07/1998	30/06/2001	A new system for pouring steel from ladle to the tundish	T2	20301	
7215-PP/017	1/07/1998	30/06/2002	Pilot section of reactive continuous annealing	T3	20910 EN	2003
7215-PP/018	1/07/1998	31/12/2000	Ultra fast cooling in the hot strip mill (Phase II)	T3	20304	
7215-PP/019	1/07/1998	30/06/2002	Rolling and coiling technology for production of thin strip for direct use	T2	20925 EN	2003
7215-PP/020	1/07/1998	31/12/2001	Controlling the geometry of work hardened strip in annealing lines using specially designed pilot equipments and developing an optimised control system for strip geometry	T3	20594	
7215-PP/021	1/07/1998	30/06/2001	Roll surface monitoring in the hot strip mill	T4	20462	
7215-PP/022	1/07/1998	30/06/2001	On-line slabs surface inspection in continuous casting using novel conoscopic holography (SURFIN)	T4	20461	
7215-PP/023	1/07/1998	30/06/2002	Hot rolling of heavy plates: thickness measurement	T4	20799 EN	2003
7215-PP/024	1/07/1998	30/06/2001	Validation of simulation models of dust & gas ventilation for the design & self-control of iron & steelmaking shops	T4	20596	
7215-PP/025	1/07/1998	30/06/2001	Demonstration of real fire tests in car parks and high buildings	F6	20466	
7215-PP/026	1/07/1999	30/06/2002	Foaming of the slag and recycling of stainless steel dusts by injection into the electric arc furnace for stainless steels	T1	20926 EN	2003
7215-PP/027	1/07/1999	30/06/2002	Scrap continuous charging to EAF	T1	20883 EN	2003
7215-PP/028	1/07/1999	30/06/2003	Innovative use of iron and steel making by-products for the sealing and securing of steel industry deposits	T1	21361 EN	2004
7215-PP/029	1/07/1999	30/06/2002	Implementation of a continuous pretreatment and injection process of pulverized coal on a blast furnace	T1	20633	
7215-PP/030	1/07/1999	31/12/2001	Control of the temperature of the bar on entry to the finisher	T2	20500	
7215-PP/031	1/07/1999	30/06/2003	Hot rolling lubrication for improved product properties	TGS4	21441 EN	2004
7215-PP/032	1/07/1999	30/06/2003	Steel aluminium transition joints for car parts of aluminium weldable to the steel body	TGS7	22252 EN	2005
7215-PP/033	1/07/1999	31/12/2002	Investigation for improving process reliability and strip quality during cold rolling of slit strip	T3	20924 EN	2003
7215-PP/034	1/07/1999	31/12/2002	Performance of reheating furnaces equipped with highly preheated air combustion technology (HPAC)	T2	21147 EN	2004
7215-PP/035	1/07/1999	30/06/2003	Laser hybrid welding of tailored tubes with integrated quality analysis and closed loop process control	TGS7	21418 EN	2004

7215-PP/036	1/07/1999	30/06/2002	Characterisation of segregation with a mapping OES apparatus	T4	21139 EN	2004
7215-PP/037	1/07/1999	30/06/2003	2nd generation automatic steel inspection for hot rolled products	T4	21244 EN	2004
7215-PP/038	1/07/1999	31/12/2002	Pilot plant for contactless internal and surface on-line detection of stainless steel strips	T4	21425 EN	2004
7215-PP/039	1/07/1999	30/06/2002	On-line diagnosis system to detect the influence of the rolls stack over the strip in a hot strip mill	T4	20896 EN	2003
7215-PP/040	1/07/1999	31/12/2003	Hot rolled plate surface inspection	TGS4	21424 EN	2004
7215-PP/041	1/07/1999	30/06/2002	Hot strip mill: camber measurement	T4	20644 EN	2003
7215-PP/042	1/07/1999	30/06/2000	Natural fire safety concept	F6	20349	
7215-PP/043	1/07/1999	30/06/2001	Valorisation project on steel in housing	F6	20569 EN	
7215-PP/044	1/07/2000	30/06/2004	Chrome immobilisation in EAF slags from high alloy steelmaking - Development of a slag treatment process	TGS2	22077 EN	2006
7215-PP/045	1/07/2000	31/12/2003	Visualisation and control of the steel flow pattern in the tundish pouring nozzle (SEN/SES)	TGS3	21247 EN	2004
7215-PP/046	1/07/2000	31/12/2003	Improvement in billet & bloom surface quality through developments in mould level & powder depth measurement & control, including automatic power feed	TGS3	21248 EN	2004
7215-PP/047	1/04/2000	31/03/2003	Development of meniscus free casting for flat products	T2	21243 EN	2004
7215-PP/048	1/07/2000	31/12/2003	Ultra-high strength pipeline prototyping for natural gas transmission	TGS8	21440 EN	2004
7215-PP/049	1/07/2000	31/12/2004	Enhanced pickling operation	TGS5	22975 EN	2007
7215-PP/050	1/07/2000	31/12/2003	High performance cooling system for the production of HSS	TGS4	21423 EN	2004
7215-PP/051	1/07/2000	30/06/2004	Ultra short continuous annealing of steel strip	TGS5	22015 EN	2005
7215-PP/053	1/07/2000	31/12/2004	Effect of hot and cold rolling technology on the textures & the plastic anisotropy of flat products	TGS4	22567 EN	2006
7215-PP/055	1/07/2000	31/12/2003	Combined measuring system for an improved nondestructive determination of the mechanical/technological material properties of steel sheet	TGS9	21339 EN	2004
7215-PP/056	1/07/2000	31/12/2002	Development of the use of stainless steel in construction	F6	21134 EN	2004

7215-PP/058	1/07/2000	31/12/2003	Steel in residential buildings for adaptable and sustainable construction	TGS8	21420 EN	2004
7215-PP/059	1/07/2001	31/12/2004	The injection of ultrahigh rates of reducing gases into a modern blast furnace	TGS1	22405 EN	2006
7215-PP/060	1/07/2001	31/12/2004	Direct ironmaking via rotary hearth furnace and new smelting technology	TGS1	22826 EN	2007
7215-PP/061	1/07/2001	30/06/2005	Development of high productivity casting of conventional and thin slabs	TGS3	23887	2009
7215-PP/062	1/07/2001	30/06/2005	New production method for steel and steel compound sections	TGS7	23352	2008
7215-PP/063	1/07/2001	30/06/2003	Demonstration at full industrial scale of innovative ecological pickling process for cold rolled stainless steel strip able to improve on-line monitored surface appearance	TGS9	21690 EN	2005
7215-PP/064	1/07/2001	31/12/2004	Further development of the flange-tip straightening process	TGS4	21914 EN	2005
7215-PP/065	1/07/2001	30/06/2004	Control of the oxidation/reduction process for strip galvanisation	TGS5	22014 EN	2005
7215-PP/066	1/07/2001	31/12/2004	Mastering rolls in high productive finishing mills	TGS4	22955 EN	2007
7215-PP/067	1/07/2001	30/06/2004	On-line determination of laser weld quality for optimisation and real time control of welding	TGS9	22016 EN	2005
7215-PP/068	1/07/2001	30/06/2004	Extension of on-line automatic surface inspection system (ASIS) to packaging & organic-coated steel lines	TGS5	21998 EN	2005
7215-PP/069	1/07/2001	31/03/2005	Application of data-based technologies to demonstrate on-line quality control of mini mills	TGS9	21976 EN	2005
7215-PP/070	1/07/2001	31/12/2004	Steel in low-rise building, a symbiosis of cold formed sections and light rolled profiles	TGS8	22080 EN	2006
7215-PP/071	1/07/2002	31/12/2007	Demonstration of a high temperature metallic filter on sinter plant wind main gas	TGS1	23899	2009
7215-PP/072	1/07/2002	31/12/2004	Reduction of dioxin emissions from sinterplants by usage of regenerative thermal oxidisers	TGS1	22031 EN	2005
7215-PP/073	1/07/2002	30/06/2005	Steel production and quality improvement at the EAF by hydrocarbon injection into the electric arc	TGS2	23329 EN	2007
7215-PP/074	1/07/2002	31/12/2005	The extended use of the He tracing technique and the assessment of the blast furnace shaft permeability	TGS1	22441 EN	2006
7215-PP/075	1/07/2002	31/12/2005	High turbulence roll cooling	TGS4	22972 EN	2007
7215-PP/076	1/07/2002	31/12/2005	Hot strip flatness optimisation by means of edge masking in the run out table cooling system	TGS4	22403 EN	2006
7215-PP/077	1/07/2002	31/12/2005	Galvanising by the zinc cushion process	TGS5	22968	2007

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7215-PP/078	1/07/2002	31/12/2005	Productivity improvement of processing lines for hot rolled strip	TGS5	22839	2007
					EN	
7215-PP/079	1/07/2002	30/06/2003	Automated measurement of material trajectories at the top of a blast furnace under operation	T4	21141	2004
					EN	