

Steel Grades Properties and Global Standards Mechanical Properties, Low Temperatures

Product	EN min. values, MPa and %												
	-196°C					-80°C				RT			
	No.	R _{p0.2}	R _{p1.0}	R _m	A ₅	R _{p0.2}	R _{p1.0}	R _m	A ₅	R _{p0.2}	R _{p1.0}	R _m	A ₅
HR Plate	1.4307	300	400	1200	30	220	290	830	35	200	240	500	45
HR Plate	1.4301	300	400	1250	30	270	350	860	35	210	250	520	45
HR Plate	1.4311	550	650	1250	35	350	420	850	40	270	310	550	40
HR Plate	1.4541	200	240	1200	30	200	240	855	35	200	240	500	40

From EN 10028-7

Common Design Codes for Stainless Steel

EN 13445	Unfired pressure vessels
EN 13480	Metallic industrial piping
EN 13458-2C	Cryogenic vessels. Annex C Pressure strengthening of vessels from austenitic stainless steel
EN 12285-C	Tanks for underground storage. Annex C Positive liquid-list of material/liquid combinations
ADR	International carriage of dangerous goods by road (Accord européen... Dangereuses par Route)
RID	International carriage of dangerous goods by rail (Règlement... International... Dangereuses)
IMDG	International Maritime Dangerous Goods code
UN ST/SG/AC.10/1	Recommendations on the transport of dangerous goods (United Nations)
ENV 1993-1.4	Eurocode 3: Design of steel structures - Supplementary rules for stainless steel
ENV 1090-6	Execution of steel structures - Supplementary rules for stainless steel
ASME VIII-1	American boiler and pressure vessel code
AD 2000	Arbeitsgemeinschaft Druckbehälter Regelwerk
CODAP	Code Français de construction des Appareils à Pression
BS 5500	Unfired fusion welded pressure vessels