

Ralloy 2328 / UNS S32750

Stainless duplex steel

A powder metallurgical super duplex ferritic/austenitic stainless steel manufactured by Hot Isostatic Pressing with a high yield strength and a high corrosion resistance.

1. Composition

	C	Cr	Mo	Ni	N
w-%	<0,025	25	4	7	0,27

2. Condition as supplied

Solution annealed and water quenched	Hardness max 270 HB
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3. Mechanical properties at RT

Yield Strength	$R_{0,2}$, min* typical	550 N/mm ² 570 N/mm ²
Ultimate Tensile Strength	R_m , min* typical	800 N/mm ² 840 N/mm ²
Elongation	A_5 , min* typical	25 % 35 %
Impact Strength CNV (wall thickness max 80 mm)	typical +20 °C typical -46 °C	> 100 J > 55 J

* Minimum values according to ASTM A182

4. Physical Properties

Density	(+20 °C)	7,8 g/cm ³
Modulus of Elasticity	(+20 °C)	200 kN/mm ²
Mean coefficient of thermal expansion	(20-100 °C)	[mm/mm/°Cx10 ⁻⁶] 13,0

5. Mechanical properties at elevated temperatures

°C	Typical (N/mm ²)	
	$R_{0,2}$	R_m
20	550	800
50	500	750
100	450	700
150	420	680
200	400	660

6. Corrosion resistance

Pren (Cr + 3,3 x Mo + 16 x N)	min 41
Critical pitting temperature CPT according to ASTM G48 A	> 60 °C

7. Heat treatment

Solution annealing 1090 °C + water quench.

8. Applications

Offshore components such as valve bodies, manifolds, headers etc.



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Specifications in this document are subject to change without notice.