

# GARBA 2205

Duplex Stainless Steel for Demanding Applications in High Corrosive Atmosphere

## Chemical composition

Element	Weight %
C	0.02%
Si	0.55%
Mn	0.87%
P max.	0.04%
S max.	0.005%
Cr	21 - 23%
Ni	4.50 - 6.50%
Mo	2.50 - 3.50%
N	0.10 - 0.22%

## Mechanical properties

<b>Diameter (mm)</b>	<b>Tolerance (mm)</b>	<b>Tensile strength (N/mm<sup>2</sup>)</b>
1.00 - 1.25	±0.012	1800 - 2070
1.26 - 1.50	±0.012	1700 - 1960
1.51 - 1.75	±0.012	1700 - 1960
1.76 - 2.00	±0.012	1700 - 1960
2.01 - 2.50	±0.015	1550 - 1790
2.51 - 3.00	±0.015	1550 - 1790
3.01 - 3.50	±0.015	1550 - 1790
3.51 - 4.25	±0.020	1450 - 1670

## Surface conditions

### Surface condition

#### Surface performance

AC coated or bright shiny surface.

## Physical properties

### Heat conductivity

Temperature °C	20	100	300
W/(m*°C)	14	16	19

### Resistivity

Temperature °C	20	100	200	300
nΩm	0.8	0.9	1.0	1.0

### Linear expansion

Pro °C	30 - 100	30 - 200	30 - 300
x10 <sup>-6</sup>	13.0	13.5	14.0

### Specific heat capacity

Temperature °C	20	200
J/(kg °C)	500	

## Technical specification

Property	Value	
E modulus of elasticity	Abt. 200 kN/mm <sup>2</sup> in drawn condition.	Abt. 210 kN/mm <sup>2</sup> after heat treatment.
G modulus of shear	Abt. 75 kN/mm <sup>2</sup> at 20°C	
Density	7.80 kg/dm <sup>3</sup>	

## Steel grades and product standards

Nearest equivalent product standards	EN ISO 6931-1	
Nearest equivalent steel grades	EN/DIN 1.4462	