

## Outokumpu 4762 High Temperature Ferritic Stainless Steel

Category : Metal , Ferrous Metal , Ferritic , Stainless Steel

### Material Notes:

Highest chromium content-most resistant to reducing sulphurous gases. Susceptible to 475°C embrittlement and s-phase forms during long exposures in the range 600-800°C. Applications: Mostly used in high temperature applications with sulphurous atmospheres and/or low tensile loads such as for installations within: Chemical industry (drums)Power industry (coal burners)Metalworking industry (heat treatment boxes)Furnace technology (walls, doors)Available in hot rolled plate (Quarto) form.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Outokumpu-4762-High-Temperature-Ferritic-Stainless-Steel.php](http://www.lookpolymers.com/polymer_Outokumpu-4762-High-Temperature-Ferritic-Stainless-Steel.php)

Physical Properties	Metric	English	Comments
Density	7.50 g/cc	0.271 lb/in <sup>3</sup>	RT

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	223	223	RT; EN 10003-1
Tensile Strength, Ultimate	555 MPa	80500 psi	Outokumpu Typical, Hot Rolled Plate (Quarto); EN 10002-1
Tensile Strength, Yield	405 MPa @Strain 0.200 %	58700 psi @Strain 0.200 %	Outokumpu Typical, Hot Rolled Plate (Quarto); EN 10002-1
	440 MPa @Strain 1.00 %	63800 psi @Strain 1.00 %	Outokumpu Typical, Hot Rolled Plate (Quarto); EN 10002-1
Elongation at Break	30 %	30 %	Outokumpu Typical, Hot Rolled Plate (Quarto); EN 10002-1

Thermal Properties	Metric	English	Comments
CTE, linear	12.0 µm/m-°C @Temperature 600 °C	6.67 µin/in-°F @Temperature 1110 °F	
	12.9 µm/m-°C @Temperature 800 °C	7.17 µin/in-°F @Temperature 1470 °F	
	14.0 µm/m-°C @Temperature 1000 °C	7.78 µin/in-°F @Temperature 1830 °F	
Specific Heat Capacity	0.460 J/g-°C	0.110 BTU/lb-°F	RT
Thermal Conductivity	14.2 W/m-K	98.5 BTU-in/hr-ft <sup>2</sup> -°F	RT
	20.9 W/m-K	145 BTU-in/hr-ft <sup>2</sup> -°F	

Thermal Properties	@Temperature 500 °C Metric	@Temperature 932 °F English	Comments
Maximum Service Temperature, Air	1150 °C	2100 °F	Dry Air

Component Elements Properties	Metric	English	Comments
Aluminum, Al	1.2 %	1.2 %	
Carbon, C	0.12 %	0.12 %	
Chromium, Cr	24 %	24 %	
Iron, Fe	74.68 %	74.68 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000102 ohm-cm	0.000102 ohm-cm	

Processing Properties	Metric	English	Comments
Annealing Temperature	800 - 850 °C	1470 - 1560 °F	Cooling: forced air or water

## Contact Songhan Plastic Technology Co.,Ltd.

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