

Industeel SIRIUS 310 25% Cr - 0.6% Si Heat Resistant Stainless Steel

Category : Metal , Ferrous Metal , Austenitic , Stainless Steel , T 300 Series Stainless Steel

Material Notes:

Description: CLI SIRIUS 310 grade is a fully austenitic stainless steel containing 25% Cr, 0.6% Si and 20% Ni additions. The alloy is well known for its multi-purpose high temperature corrosion resistance behavior. Carbon additions are optimized in order to provide improved creep resistance properties. Alloy CLI SIRIUS 310 can be easily welded. The alloy is designed for high temperature applications up to 1100°C (2012°F) in oxidizing atmospheres. The alloy can be also used in slightly oxidizing atmospheres,, nitriding, cementing, sulphurising conditions as well as with thermal cyclings, but the maximum temperature of use will be reduced. Information provided by manufacturer.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Industeel-SIRIUS-310-25-Cr-06-Si-Heat-Resistant-Stainless-Steel.php

Mechanical Properties	Metric	English	Comments
Tensile Strength, Ultimate	550 MPa	79800 psi	Typical after Solution Annealing
Tensile Strength, Yield	245 MPa	35500 psi	Typical after Solution Annealing
	@Strain 0.200 %	@Strain 0.200 %	
	265 MPa	38400 psi	Typical after Solution Annealing
	@Strain 1.00 %	@Strain 1.00 %	
Elongation at Break	45 %	45 %	Typical
Creep Strength	120 MPa	17400 psi	
	@Temperature 600 Â°C, Time 3.60e+6 sec	@Temperature 1110 Â°F, Time 1000 hour	
Modulus of Elasticity	200 GPa	29000 ksi	
Poissons Ratio	0.333	0.333	Calculated
Shear Modulus	75.0 GPa	10900 ksi	
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	

Thermal Properties	Metric	English	Comments
CTE, linear	15.5 Âµm/m-Â°C	8.61 Âµin/in-Â°F	
	@Temperature 20.0 - 100 Â°C	@Temperature 68.0 - 212 Â°F	
	16.0 Âµm/m-Â°C	8.89 Âµin/in-Â°F	
	@Temperature 20.0 - 200 Â°C	@Temperature 68.0 - 392 Â°F	

Thermal Properties	Metric	English	Comments
	@Temperature 20.0 - 400 Â°C	@Temperature 68.0 - 752 Â°F	
	18.0 Âµm/m-Â°C	10.0 Âµin/in-Â°F	
	@Temperature 20.0 - 600 Â°C	@Temperature 68.0 - 1110 Â°F	
Specific Heat Capacity	0.480 J/g-Â°C	0.115 BTU/lb-Â°F	
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	
Thermal Conductivity	14.0 W/m-K	97.2 BTU-in/hr-ftÂ²-Â°F	
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	

Component Elements Properties	Metric	English	Comments
Carbon, C	<= 0.10 %	<= 0.10 %	
Chromium, Cr	25 %	25 %	
Iron, Fe	54.3 - 54.4 %	54.3 - 54.4 %	As remainder
Nickel, Ni	20 %	20 %	
Silicon, Si	0.60 %	0.60 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000900 ohm-cm	0.0000900 ohm-cm	
	@Temperature 20.0 Â°C	@Temperature 68.0 Â°F	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China