

Industeel CLC 1.2316 Prehardened (300HB) and Corrosion Resistant Mold Steel

Category : Metal , Ferrous Metal , Tool Steel , Mold Steel

Material Notes:

Description: CLC 1.2316 is a 16%Cr 1% Mo with improved corrosion resistance properties, thanks to the chromium/molybdenum additions. The high cleanliness/homogeneity of the steel makes it specially adapted to fine polishing (mirror finish). This steel is commonly used for mold steel applications including cores, inserts, mold cavities and working or stored in wet environments. This grade is also used for the production of corrosive materials like PVC. Information provided by manufacturer.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Industeel-CLC-12316-Prehardened-300HB-and-Corrosion-Resistant-Mold-Steel.php

| Physical Properties | Metric | English | Comments |
|---------------------|-----------|--------------------------|----------|
| Density | 7.75 g/cc | 0.280 lb/in ³ | |

| Mechanical Properties | Metric | English | Comments |
|----------------------------|----------------------------|-------------------------------|------------------------------------|
| Hardness, Brinell | 340 | 340 | Typical, in Longitudinal |
| Tensile Strength, Ultimate | 1135 MPa | 164600 psi | Typical, Longitudinal Direction |
| Tensile Strength, Yield | 950 MPa @Strain 0.200 % | 138000 psi @Strain 0.200 % | Typical, Longitudinal Direction |
| Elongation at Break | 10 % | 10 % | Typical, Longitudinal Direction |
| Modulus of Elasticity | 207 GPa | 30000 ksi | Typical, in Longitudinal Direction |
| Charpy Impact | 13.0 J | 9.59 ft-lb | Typical (Longitudinal) |

| Thermal Properties | Metric | English | Comments |
|------------------------|--|--|----------|
| CTE, linear | 11.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 - 100 $\text{Å}^\circ\text{C}$ | 6.11 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 - 212 $\text{Å}^\circ\text{F}$ | |
| | 11.1 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 - 200 $\text{Å}^\circ\text{C}$ | 6.17 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 - 392 $\text{Å}^\circ\text{F}$ | |
| | 11.7 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$ @Temperature 20.0 - 400 $\text{Å}^\circ\text{C}$ | 6.50 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$ @Temperature 68.0 - 752 $\text{Å}^\circ\text{F}$ | |
| Specific Heat Capacity | 0.460 J/g- $\text{Å}^\circ\text{C}$ @Temperature 20.0 $\text{Å}^\circ\text{C}$ | 0.110 BTU/lb- $\text{Å}^\circ\text{F}$ @Temperature 68.0 $\text{Å}^\circ\text{F}$ | |

| Thermal Properties Thermal Conductivity | Metric 24.3 W/m-K | English 150 BTU-in/hr-ft ² -Â°F | Comments |
|--|--------------------------|---|----------|
| | @Temperature 20.0 Â°C | @Temperature 68.0 Â°F | |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|------------------|------------------|--------------|
| Carbon, C | 0.40 % | 0.40 % | |
| Chromium, Cr | 16 % | 16 % | |
| Iron, Fe | 81.285 - 81.32 % | 81.285 - 81.32 % | As remainder |
| Manganese, Mn | 0.90 % | 0.90 % | |
| Molybdenum, Mo | 1.03 % | 1.03 % | |
| Phosphorous, P | <= 0.030 % | <= 0.030 % | |
| Silicon, Si | 0.35 % | 0.35 % | |
| Sulfur, S | <= 0.0050 % | <= 0.0050 % | |

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