SONGHAN Plastic Technology Co., Ltd.

Kaiser 6040 T6, T651 Rod & Bar

Category : Metal , Nonferrous Metal , Aluminum Alloy , 6000 Series Aluminum Alloy

Material Notes:

6040 is a lead-free alternative to 6262. The alloy offers very good machinability along with good corrosion resistance. It also has excellent coating acceptance (anodize response). It can be used in place of 6062. Physical and mechanical properties are equivalent to 6262. Ratings A through E are relative ratings in decreasing order of merit, based on exposures to sodium chloride solution by intermittent spraying or immersion. Alloys with A and B ratings can be used in industrial and seacoast atmospheres without protection. Alloys with C, D and E ratings generally should be protected at least on faying surfaces. Stress-corrosion cracking ratings are based on service experience and laboratory tests of specimens exposed to the 3.5% sodium chloride alternate immersion test. A= No known instance of failure in service or in laboratory tests. B= No known instance of failure in service; limited failures in laboratory tests of short transverse specimens. C= Service failures with sustained tension stress acting in short transverse direction relative to grain structure; limited failures in laboratory tests of long transverse specimens. D= Limited service failures with sustained longitudinal or long transverseRatings A through D for Workability (cold), A through E for Machinability and A through C for Anodize Response, are relative ratings in decreasing order of merit. Ratings A through D for Weldability and Brazeability are relative ratings defined as follows:A= Generally weldable by all commercial procedures and methods.B= Weldable with special techniques or for specific applications that justify preliminary trials or testing to develop welding procedure and weld performance.C= Limited weldability because of crack sensitivity or loss in resistance to corrosion and mechanical properties.D= No commonly used welding methods have been developed.

Order this product through the following link: http://www.lookpolymers.com/polymer_Kaiser-6040-T6-T651-Rod-Bar.php

| Mechanical Properties | Metric | English | Comments |
|----------------------------|-------------------|--------------------|----------|
| Tensile Strength, Ultimate | 324 MPa | 47000 psi | |
| | @Diameter 12.7 mm | @Diameter 0.500 in | |
| Tensile Strength, Yield | 296 MPa | 42900 psi | |
| | @Diameter 12.7 mm | @Diameter 0.500 in | |
| Elongation at Break | 15 % | 15 % | 4D |
| | @Diameter 12.7 mm | @Diameter 0.500 in | |

| Component Elements Properties | Metric | English | Comments |
|-------------------------------|-----------------|-----------------|------------|
| Aluminum, Al | 93.75 - 98.15 % | 93.75 - 98.15 % | As Balance |
| Bismuth, Bi | 0.15 - 0.70 % | 0.15 - 0.70 % | |
| Chromium, Cr | <= 0.15 % | <= 0.15 % | |
| Copper, Cu | 0.20 - 0.80 % | 0.20 - 0.80 % | |
| Iron, Fe | <= 0.70 % | <= 0.70 % | |
| Magnesium, Mg | 0.80 - 1.2 % | 0.80 - 1.2 % | |

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| Component Elements Properties | Metric _{5 %} | English _% | Comments |
|-------------------------------|-----------------------|----------------------|----------|
| Other, each | <= 0.050 % | <= 0.050 % | |
| Other, total | <= 0.15 % | <= 0.15 % | |
| Silicon, Si | 0.40 - 0.80 % | 0.40 - 0.80 % | |
| Tin, Sn | 0.30 - 1.2 % | 0.30 - 1.2 % | |
| Titanium, Ti | <= 0.15 % | <= 0.15 % | |
| Zinc, Zn | <= 0.25 % | <= 0.25 % | |

| Descriptive Properties | Value | Comments |
|-------------------------------|-------|----------|
| Anodize Response3 | Α | |
| Cold Workability3 | С | |
| General Corrosion Resistance1 | В | |
| Machinability3 | В | |
| Stress Corrosion Resistance2 | Α | |

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