TRIBALOY T-800 is a cobalt-chromium-molybdenum alloy which inhibits galling between sliding surfaces where lubrication is difficult. The microstructure of TRIBALOY T-800 consists of about 50% of the hard intermetallic Laves phase dispersed in a softer cobalt alloy matrix. This provides the material with exceptional metal to metal wear bearing properties. The high levels of molybdenum and chromium present favors the formation of the high hardness Laves phase and also provides a high level of corrosion resistance. The Laves phase itself has a 2840°F melting point, which helps TRIBALOY T-800 retain its wear resistance to high temperatures. Deposit hardness is in the range of Rockwell C 54-62. Wire diameters 0.035", 0.045" and 0.062" are available as straight cut lengths 17" standard. Shapes are available per customer requirements.

# **Specifications**

HARDFACING MATERIALS SNECMA: DMR 34.071, B50TF193

#### Chemical Composition, %

|     | Cr   | Ni+Fe | Мо   | Со      | C    | N    | 0    | Si  | P    | S    |
|-----|------|-------|------|---------|------|------|------|-----|------|------|
| MIN | 16.5 | _     | 27.0 | _       | -    | _    | -    | 3.0 | -    | 1    |
| MAX | 18.5 | 3.0   | 30.0 | balance | 0.08 | 0.07 | 0.05 | 3.8 | 0.03 | 0.03 |

#### **Features**

• Low coefficient of friction

### **Applications**

• Hardfacing of notches in jet engine turbine blades

#### **Physical Properties**

**Density:** 0.312 lb/in<sup>3</sup> **Thermal Expansion:** 6.8 in/in°F x 10<sup>-6</sup>

## **Mechanical Properties**

| Ultimate Compressive Strength,<br>ksi                   | 258  |
|---|------|
| Modulus of Elasticity Dynamic,<br>psi x 10 <sup>6</sup> | 35.2 |
| Fracture Toughness<br>ksi √in                           | 17   |

# **Hot Hardness**

| Temperature, °F | 800  | 1000 | 1200 | 1400 |
|-----------------|------|------|------|------|
| Rockwell C      | 48.5 | 31.0 | 58.0 | 56.5 |

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