

LION T-800 is a cobalt-chromium-molybdenum alloy which inhibits galling between sliding surfaces where lubrication is difficult. The microstructure of LION 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 LION 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	Mo	Co	C	N	O	Si	P	S
MIN	16.5	—	27.0	—	—	—	—	3.0	—	—
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/in³ Thermal Expansion: 6.8 in/in°F x 10⁻⁶

Mechanical Properties

Ultimate Compressive Strength, ksi	258			
Modulus of Elasticity Dynamic, psi x 10 ⁻⁶	35.2			
Fracture Toughness ksi √in	17			

Hot Hardness

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