



Ultra-Hard Tungsten Carbide Based Coatings



# Hardide Coatings

## Our Coatings

### ► Range of Coatings

Hardide® is a family of low temperature CVD (chemical vapour deposition) tungsten carbide based coatings that increase the life of critical metal components operating in abrasive, erosive and chemically aggressive environments. The coatings have a unique combination of abrasion, erosion and chemical resistant properties while being tough, ductile and impact resistant.

There are four types of standard range Hardide coatings all of which can coat internal surfaces. The coatings' properties include:

- ▶ Exceptional toughness, flexibility and impact resistance
- ▶ Coats internal surfaces and complex shapes uniformly
- ▶ Withstand deformations and shock loads
- ▶ High hardness
- ▶ Chemically resistant
- ▶ Very low porosity
- ▶ Smooth finish
- ▶ Machinability and facilitated finishing

TYPE	HARDNESS	TOUGHNESS	THICKNESS	APPLICATIONS
Hardide – T (Tough)	1100 – 1600 Hv	Excellent	Typically 50 µm	Many including oil tools, pumps, valves, actuators
Hardide-A	800 – 1200 Hv	Excellent	Typically 50-100 µm	Hard chrome replacement. Primarily aerospace
Hardide-M (Multi-Layer)	1200 – 2000 Hv	Good	Typically 50 µm	Abrasion/erosion resistance
Hardide-H (Ultra-Hard)	3000 – 3500 Hv	Satisfactory	5-12 µm	Self-sharpening blades

### ► Bespoke Coatings

The capability of our in-house technical and engineering teams and the flexibility of Hardide's properties, allows us to engineer a solution for your specific needs. Contact us today to discuss your requirements.

#### ► Further information

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