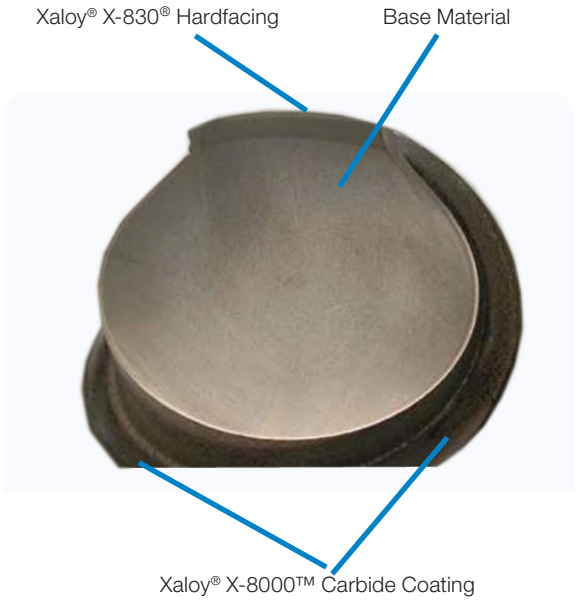
Xaloy® X-8000™ Encapsulated Screws

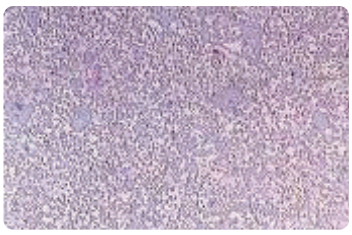
The Xaloy® X-8000™ coating is a thermal spray coating applied to the screw. This material complements Xaloy's high abrasive resistant Xaloy® X-830® overlay and is well suited for processing highly filled or corrosive resins. It can be applied for the full flight length or only on isolated areas of the screw that are more susceptible to wear.



Nickel Based Alloy with Tungsten Carbide

Tungsten carbide particles-extremely hard and abrasion resistant

- Thickness: 0.4 mm (0.020")
- Hardness of Tungsten Carbides: 1350-2100 HV
- Maximum Processing Temperature: 800°F (425°C)



Standard Surface Finish:

Ra mm = 1.90-2.16 (Ra mi = 75-85)

Polished Surface Finish:

Ra mm = 0.20-0.40 (Ra mi = 8-16)

Features and Benefits

Benefits

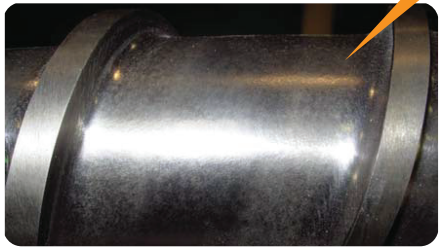
- Tungsten carbide cladding - improved wear and superior corrosion resistance
- Metallurgical bond - no chipping or delamination issues associated with HVOF carbide coatings
- Complete Xaloy Wear System - for the ultimate in wear protection:
  - Xaloy® X-8000™ carbide cladding on the screw root surfaces
  - Xaloy® X-830® carbide hardfacing on screw flight OD's
  - Xaloy® X-800® carbide barrel lining
- Rebuilt Screws - the Xaloy® X-8000™ coating is repairable and the O.D. rebuildable

Application Method:

- The Xaloy® X-8000™ coating is a thermal spray coating. To eliminate risk of delaminating, a second process fuses the nickel/tungsten carbide alloy. This allows for 100% metallurgical bonding to the screw base material.
  The typical bond strength is 280 megapascals. This exceeds non-fused, mechanical bonds of 70 MPa which is common among all our global competitor's carbide coating.

▲ Typical poor adhesion and chipping of competitive carbide coatings

▼ The Xaloy® X-8000™ coating has a metallurgical bond exhibiting no chipping



Xaloy LLC
375 Victoria Road
Austintown, OH 44515 USA
+1.330.726.4000 **Phone**

Germany
+49.7132.999.35.0 **Phone**

Thailand
+66.38.717.084 **Phone**

China
+86.21.5785.091.8 **Phone**

www.xaloy.com | info@xaloy.com

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