Extreme Coatings™

Carbide Encapsulated Feedscrews

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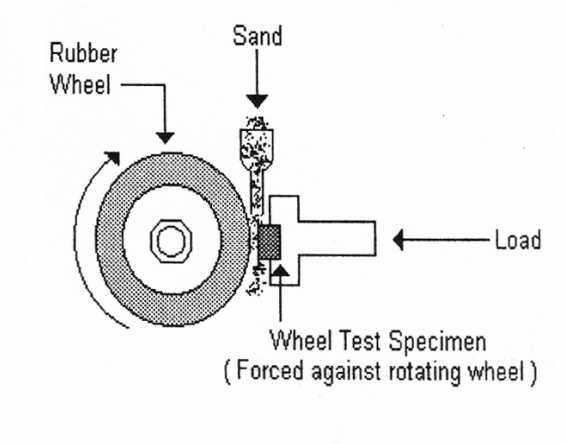
Wear Resistance Comparison

The ASTM G65 Dry Sand test approximates the low stress sliding abrasion a feed screw experiences when processing filled polymers. The test allows a comparison between hard wearing materials such as standard tool steel, alloy weld overlay, powder metallurgy steel and cemented carbide.

ASTM G65 (Dry Sand)
2000 revolutions, 30 lb. (13.6 Kg) load
9 inch (229 mm) diameter rubber wheel
calibrated dry sand.

Compare cubic millimeters volume loss between materials tested.



Abrasive Wear Test Unit

Coating or Alloy	Chemical Composition	Application Process	Average Hardness RC	Volume Loss mm^3
XC1000	88 Wc / 12 Co	HVOF	68-71	3.0
XC1000Ni	90 Wc / 10 Ni	HVOF	68-71	3.0
XC4000	75 Cr_3C_2 / 25 NiCr	HVOF	62-64	3.2
XC9000	88 Wc / 12 Co	HVOF	68-71	2.4
Stellite 6	Co/Cr/W	Weld overlay	40	29.0
Stellite12	Co/Cr/W	Weld overlay	47	19.0
Stellite 1	Co/Cr/W	Weld overlay	54	12.0
Colmonoy 83	Ni/Cr/Boron/Wc	Weld overlay	48	10.0
Colmonoy 56	Ni/Cr/Boron	Weld overlay	49	15.0
D2 Steel (1.2379)	Fe/Cr	Wrought steel	60	12.0
CPM-9V (HIP)	Cr/V/Mo	Powder Metallurgy	54-56	9.5
Nitralloy (1.8550)	Fe/Al	Wrought steel	70	37*
	Nitralloy volume loss estimated			

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