

RÖCHLING datasheet

SUSTAMID | 2009

SUSTAMID6G (Cast Nylon)

SUSTAMID **6G** provides excellent sliding properties and impact resistance and is commonly used in applications requiring larger parts. This product is manufactured by directly casting the raw materials into a mold to produce sheets, rods, tubes and near-net shapes. SUSTAMID **6G Natural** is off-white in color and is commonly used in food processing applications. SUSTAMID **6G MoS₂** is black in color and is enhanced with molybdenum disulfide to provide extra lubricity. SUSTAMID **6G OL** is green in color and oil-filled to improve the frictional properties and extend the life of the product. SUSTAMID **6G HS Blue** is produced with a heat stabilizer that increases the continuous operating temperature to 230° F. Other special grades are also available by request.

Product Features:

- ⇒ Excellent sliding properties
- ⇒ Extremely high abrasion resistance
- ⇒ High mechanical and impact strength
- ⇒ Excellent machinability
- ⇒ Continuous use temperature of 200° F
- ⇒ High moisture absorption of up to 3%
- ⇒ Highly resistant to hydrocarbons, alkalis and oils
- ⇒ Natural is FDA compliant

Typical Properties of Stock Shapes

Property	Units	Test Method	Value Natural	Value MoS ₂	Value Oil filled
Specific Gravity	%	ASTM D 792	1.14	1.15	1.15
Water Absorption 24 hrs	%	ASTM D 570	1	0.7	1
Water Absorption Saturation	-	ASTM D 570	8.5	7	5
Flammability	psi	UL 94	HB	HB	HB
Tensile Strength	%	ASTM D 638	12,000	12,500	11,000
Elongation	psi	ASTM D 638	25	35	30
Modulus	psi	ASTM D 638	550,000	460,000	370,000
Flexural Strength	psi	ASTM D 790	15,000	16,000	14,000
Modulus	ft-lb/in	ASTM D 790	420,000	450,000	380,000
Notched Izod	-	ASTM D 256	0.6	0.6	1.2
Rockwell Hardness	°F	ASTM D 785	M85	M80	M85
HDT @ 264 psi	in/in/°F	ASTM D 648	195	200	200
Coefficient Linear thermal expansion	V / mil	ASTM D 696	4.50 x 10 ⁻⁵	4.0 x 10 ⁻⁵	5.0 x 10 ⁻⁵
Dielectric Strength	ohm-cm	ASTM D 149	500	410	500
Volume Resistivity	-	ASTM D 257	>10 ¹³	>10 ¹²	>10 ¹³
Dielectric Constant	-	ASTM D 150	3.8	3.8	3.7

Typical Applications

- ⇒ Gears
- ⇒ Sheaves
- ⇒ Sprockets
- ⇒ Sliding pads
- ⇒ Wear shoes
- ⇒ Timing screws
- ⇒ Thrust washers
- ⇒ Outrigger pads

Certifications

- ⇒ ASTM 4066 PA 0211
- ⇒ ASTM D6779
- ⇒ Natural is FDA compliant



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