

Baytec® MS-051 (BDO)

Polyurethane (Polyester, MDI)

Covestro - PUR

Message:

Baytec MS-051 is a modified diphenylmethane diisocyanate (MDI)-terminated polyester prepolymer used in the manufacture of high-property solid cast polyurethane elastomers. The excellent resilience and low compression-set properties have enabled this material to be used for low-durometer wheels, printing rolls, and squeegee blades. As with any product, use of Baytec MS-051 prepolymer in a given application must be tested (including field testing, etc.) in advance by the user to determine suitability.

General Information			
Features	Low compressive deformability		
	Elastic		
Uses	Wheels		
	Roller		
Forms	Liquid		
Hardness	Nominal Value	Test Method	
Durometer Hardness (Shore A)	80	ASTM D2240	
Mechanical	Nominal Value	Unit	Test Method
Taber Abrasion Resistance (1000 Cycles, 1000 g, H-18 Wheel)	16.0	mg	ASTM D4066
Compression Deflection			ASTM D575
10%	1.52	MPa	ASTM D575
15%	2.28	MPa	ASTM D575
2%	0.241	MPa	ASTM D575
20%	3.07	MPa	ASTM D575
25%	3.93	MPa	ASTM D575
5%	0.724	MPa	ASTM D575
50%	10.9	MPa	ASTM D575
Elastomers	Nominal Value	Unit	Test Method
Tensile Stress			ASTM D412
100% strain	4.41	MPa	ASTM D412
200% strain	6.00	MPa	ASTM D412
300% strain	8.14	MPa	ASTM D412
Tensile Strength (Break)	37.0	MPa	ASTM D412
Tensile Elongation (Break)	530	%	ASTM D412
Tear Strength			
-- ¹	66.5	kN/m	ASTM D624
Cracking	18	kN/m	ASTM D1938
Compression Set (70°C, 22 hr)	24	%	ASTM D395

Bayshore Resilience	52	%	ASTM D2632
Additional Information			
Appearance: Light amber liquidNCO: 4.9 to 5.2 wt%Flash Point, PMCC: >93°CSpecific Gravity at 80°C: 1.18Specific Gravity at 100°C: 1.17Viscosity at 80°C: 2700 mPa-sViscosity at 700°C: 115 mPa-sNCO/OH Ratio: 1.05Stoichiometry: 95% TheoryPrepolymer Temperature: 90 to 100°CExtender Temperature: 50 to 70°C Mold Temperature: 100 to 110°C Pot Life: 10 to 15 minDemold: 60 min			
NOTE			
1.	C mould		

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

