AKROMID® B3 1 L natural (4685)

Polyamide 6 + PP

AKRO-PLASTIC GmbH



Technical Data

Product Description

AKROMID® B3 1 L natural (4685) is an unreinforced and heat stabilised polyamide-blend with a reduced density compared to standard PA6

Technical components in the automotive and electronic industry, where a weight and cost reduction is required

General			
Material Status	 Commercial: Active 		
Search for UL Yellow Card	AKRO-PLASTIC GmbHAKROMID®		
Availability	Africa & Middle EastAsia Pacific	EuropeLatin America	North America
Additive	 Heat Stabilizer 		
Features	 Heat Stabilized 		
Uses	Automotive Applications	 Electrical/Electronic Applications 	
Appearance	 Natural Color 		
Resin ID	• PA6 + PP		

Charpy Notched Impact Strength (23°C) Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 0.45 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) Flame Rating (0.8 mm) HB UL 94	Physical	Nominal Value Unit	Test Method
Spiral Flow Internal Method 2 22.0 cm 3 66.0 cm Molding Shrinkage 1.6 % Across Flow 1.4 % Flow 1.4 % Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) No Break ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/B 1.8 Imperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) Nominal Value Unit Test Method	Density (23°C)	1.03 g/cm ³	ISO 1183
2 22.0 cm 3 66.0 cm Molding Shrinkage ISO 294-4 Across Flow 1.6 % Flow 1.4 % Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 0.45 MPa, Unannealed 60.0 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/B Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Melt Volume-Flow Rate (MVR) (275°C/5.0 kg)	70 cm³/10min	ISO 1133
So So So So So So So So	Spiral Flow		Internal Method
Molding Shrinkage ISO 294-4 Across Flow 1.6 % Flow 1.4 % Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/B Melting Temperature ⁴ 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) Nominal Value Unit Test Method Additional Information Nominal Value Unit Test Method	2	22.0 cm	
Across Flow 1.6 % Flow 1.4 % Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 140 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	3	66.0 cm	
Flow 1.4 % Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Molding Shrinkage		ISO 294-4
Mechanical Nominal Value Unit Test Method Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 140 °C ISO 75-2/A Melting Temperature ⁴ 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Across Flow	1.6 %	
Tensile Modulus 2400 MPa ISO 527-1/1 Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min FMVSS 302 Flame Rating (0.8 mm) HB UL 94 Additional Information Nominal Value Unit Test Method	Flow	1.4 %	
Tensile Stress (Yield) 55.0 MPa ISO 527-2/50 Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Mechanical	Nominal Value Unit	Test Method
Impact Nominal Value Unit Test Method Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 40°C ISO 75-2/B 1.8 MPa, Unannealed 60.0°C ISO 75-2/A Melting Temperature 4 220°C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Tensile Modulus	2400 MPa	ISO 527-1/1
Charpy Notched Impact Strength (23°C) 6.0 kJ/m² ISO 179/1eA Charpy Unnotched Impact Strength (23°C) No Break ISO 179/1eU Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 40.45 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature ⁴ 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Tensile Stress (Yield)	55.0 MPa	ISO 527-2/50
Charpy Unnotched Impact Strength (23°C) Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 0.45 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Burning Rate (> 1.00 mm) FMVSS 302 Flame Rating (0.8 mm) Additional Information Nominal Value Unit Test Method	Impact	Nominal Value Unit	Test Method
Thermal Nominal Value Unit Test Method Deflection Temperature Under Load 140 °C ISO 75-2/B 0.45 MPa, Unannealed 60.0 °C ISO 75-2/A 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Charpy Notched Impact Strength (23°C)	6.0 kJ/m²	ISO 179/1eA
Deflection Temperature Under Load 0.45 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature 4 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Charpy Unnotched Impact Strength (23°C)	No Break	ISO 179/1eU
0.45 MPa, Unannealed 140 °C ISO 75-2/B 1.8 MPa, Unannealed 60.0 °C ISO 75-2/A Melting Temperature ⁴ 220 °C ISO 11357-3 Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	Thermal	Nominal Value Unit	Test Method
1.8 MPa, Unannealed60.0 °CISO 75-2/AMelting Temperature 4220 °CISO 11357-3FlammabilityNominal Value UnitTest MethodBurning Rate (> 1.00 mm)< 100 mm/min	Deflection Temperature Under Load		
Melting Temperature 4220 °CISO 11357-3FlammabilityNominal Value UnitTest MethodBurning Rate (> 1.00 mm)< 100 mm/min	0.45 MPa, Unannealed	140 °C	ISO 75-2/B
Flammability Nominal Value Unit Test Method Burning Rate (> 1.00 mm) < 100 mm/min	1.8 MPa, Unannealed	60.0 °C	ISO 75-2/A
Burning Rate (> 1.00 mm) Flame Rating (0.8 mm) Additional Information Summin FMVSS 302 HB UL 94 Test Method	Melting Temperature ⁴	220 °C	ISO 11357-3
Flame Rating (0.8 mm) HB UL 94 Additional Information Nominal Value Unit Test Method	Flammability	Nominal Value Unit	Test Method
Additional Information Nominal Value Unit Test Method	Burning Rate (> 1.00 mm)	< 100 mm/min	FMVSS 302
	Flame Rating (0.8 mm)	НВ	UL 94
Reinforcement Content 0.0 % ISO 1172	Additional Information	Nominal Value Unit	Test Method
	Reinforcement Content	0.0 %	ISO 1172

Notes



Form No. TDS-222057-en

¹ Typical properties: these are not to be construed as specifications.

² Mold Temperature: 80°C, Melt Temperature: 270°C, Injection Pressure: 750 bar, 1.00 mm

³ Mold Temperature: 80°C, Melt Temperature: 270°C, Injection Pressure: 750 bar, 2.00 mm

^{4 10°}C/min

AKROMID® B3 1 L natural (4685)

Polyamide 6 + PP

AKRO-PLASTIC GmbH



Where to Buy

Supplier

AKRO-PLASTIC GmbH

, Germany Telephone: +49-2636-9742-0 Web: http://www.akro-plastic.com/

Distributor

Please contact the supplier to find a distributor for AKROMID® B3 1 L natural (4685)



Form No. TDS-222057-en