

POCAN® KU 2-7003 POS042 000000

Polybutylene Terephthalate

LANXESS GmbH

Message:

PBT, non-reinforced, injection molding

General Information			
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.30	g/cm ³	ISO 1183
Apparent Density	0.80	g/cm ³	ISO 60
Melt Volume-Flow Rate (MVR) (260°C/2.16 kg)	60.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ISO 2577
Vertical flow direction: 260°C, 2.00mm ¹	1.7	%	ISO 2577
Vertical flow direction: 120°C, 4 hours, 2.00mm ²	0.30	%	ISO 2577
Flow direction: 260°C, 2.00mm ³	1.7	%	ISO 2577
Flow direction: 120°C, 4 hours, 2.00mm ⁴	0.30	%	ISO 2577
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness	120	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
23°C	2720	MPa	ASTM D638
23°C	2800	MPa	ISO 527-2/1
Tensile Stress			
Yield, 23°C	55.0	MPa	ISO 527-2/50
Fracture, 23°C	48.3	MPa	ASTM D638
Tensile Strain			
Yield, 23°C	8.0	%	ISO 527-2/50
Fracture, 23°C	38	%	ASTM D638
Nominal Tensile Strain at Break (23°C)	> 20	%	ISO 527-2/50
Flexural Modulus			
23°C	2380	MPa	ASTM D790
23°C ⁵	2700	MPa	ISO 178/A
Flexural Strength			
23°C	89.6	MPa	ASTM D790
3.5% strain, 23°C	80.0	MPa	ISO 178/A
23°C ⁶	90.0	MPa	ISO 178/A
Flexural Strain at Flexural Strength ⁷ (23°C)	6.0	%	ISO 178/A
ISO Shortname	PBT, GHR, 09-030		ISO 7792

Residual Moisture Content	0.0 - 0.020	%	Karl Fisher
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	< 10	kJ/m ²	ISO 179/1eA
23°C	< 10	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C	100	kJ/m ²	ISO 179/1eU
23°C	200	kJ/m ²	ISO 179/1eU
Notched Izod Impact			ISO 180/1A
-40°C	< 10	kJ/m ²	ISO 180/1A
-30°C	< 10	kJ/m ²	ISO 180/1A
23°C	< 10	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			
0.45 MPa, not annealed	160	°C	ISO 75-2/B
1.8 MPa, not annealed	60.0	°C	ISO 75-2/A
Melting Temperature ⁸	225	°C	ISO 11357-3
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 55°C	1.2E-4	cm/cm/°C	ISO 11359-2
Lateral: 23 to 55°C	1.2E-4	cm/cm/°C	ISO 11359-2
Electrical	Nominal Value	Unit	Test Method
Comparative Tracking Index (Solution A)	600	V	IEC 60112
Injection	Nominal Value	Unit	Test Method
Drying Temperature - Circulation Dryer	120	°C	
Drying Time - Circulation Dryer	4.0 - 8.0	hr	
Processing (Melt) Temp	250 - 260	°C	
Mold Temperature	80.0 - 100	°C	
NOTE			
1.	60x60x2mm, 80°C MT, 600 bar		
2.	60x60x2mm		
3.	60x60x2mm, 80°C MT, 600 bar		
4.	60x60x2mm		
5.	2.0 mm/min		
6.	2.0 mm/min		
7.	2 mm/min		
8.	10°C/min		

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