



Copolyester Z6002, Natural Product Data Sheet

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.2
Density	ISO 1183	1.19 g/cm ³
Mold Shrinkage Parallel to Flow, 3.2-mm (0.125-in.) thickness	D 955	0.002-0.006 mm/mm (0.002-0.006 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	47 MPa (6900 psi)
Tensile Stress @ Break	D 638	51 MPa (7400 psi)
Elongation @ Yield	D 638	5%
Elongation @ Break	D 638	300%
Flexural Modulus	D 790	2000 MPa (2.9 x 10 ⁵ psi)
Flexural Yield Strength	D 790	69 MPa (10000 psi)
Rockwell Hardness, R Scale	D 785	103
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	80 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	40 J/m (0.7 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	42 J (31 ft·lbf)
@ -40°C (-40°F)	D 3763	48 J (35 ft·lbf)
Mechanical Properties (ISO Method)		
Tensile Strength @ Yield	ISO 527	47 MPa
Tensile Strength @ Break	ISO 527	46 MPa
Elongation @ Yield	ISO 527	4%
Elongation @ Break	ISO 527	200%
Tensile Modulus	ISO 527	1800 MPa
Flexural Modulus	ISO 178	1850 MPa
Flexural Strength	ISO 178	65 MPa
Izod Impact Strength, Notched		
@ 23°C	ISO 180	7.8 kJ/m ²

@ -40°C	ISO 180	4.8 kJ/m ²
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C	ISO 6603-2	58.7 J
@ -40°C	ISO 6603-2	52.6 J

Thermal Properties

Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	75°C (167°F)
@ 1.82 MPa (264 psi)	D 648	65°C (149°F)

Thermal Properties (ISO Method)

Deflection Temperature		
@ 0.455 MPa (66 psi)	ISO 75	72°C
@ 1.82 MPa (264 psi)	ISO 75	66°C

Optical Properties

Haze	D 1003	0.3%
Regular Transmittance	D 1003	89%
Total Transmittance	D 1003	91%

Typical Processing Conditions

Drying Temperature	70°C (160°F)
Drying Time	3 hrs
Processing Melt Temperature	230-280°C (450-530°F)
Mold Temperature	15-30°C (60-80°F)

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

Comments

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Copolyester Z6004, Natural Preliminary Data Sheet

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.19
Density	ISO 1183, Method A	1.19 g/cm ³
Mold Shrinkage Parallel to Flow, 3.2-mm (0.125-in.) thickness	D 955	0.002-0.006 mm/mm (0.002-0.006 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	49 MPa (7100 psi)
Tensile Stress @ Break	D 638	45 MPa (6500 psi)
Elongation @ Yield	D 638	5%
Elongation @ Break	D 638	300%
Flexural Modulus	D 790	2000 MPa (2.9 x 10 ⁵ psi)
Flexural Strength	D 790	70 MPa (10000 psi)
Rockwell Hardness, R Scale	D 785	107
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	80 J/m (1.5 ft·lbf/in.)
@ -40°C (-40°F)	D 256	45 J/m (0.8 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Mechanical Properties (ISO Method)		
Tensile Stress @ Yield	ISO 527	47 MPa
Tensile Stress @ Break	ISO 527	35 MPa
Elongation @ Yield	ISO 527	4.5%
Elongation @ Break	ISO 527	187%
Flexural Modulus	ISO 178	1830 MPa
Flexural Strength	ISO 178	67 MPa
Izod Impact Strength, Notched		
@ 23°C	ISO 180	7.7 kJ/m ²
@ -40°C	ISO 180	4.9 kJ/m ²
Thermal Properties		
Deflection Temperature		

@ 0.455 MPa (66 psi)	D 648	70°C (158°F)
@ 1.82 MPa (264 psi)	D 648	65°C (149°F)

Thermal Properties (ISO Method)

Deflection Temperature

@ 1.82 MPa (264 psi)	ISO 75	65°C
@ 0.455 MPa (66 psi)	ISO 75	72°C

Typical Processing Conditions

Drying Temperature	70°C (160°F)
Drying Time	4 hrs
Processing Melt Temperature	230-280°C (450-530°F)
Mold Temperature	15-30°C (60-80°F)

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^bUnless noted otherwise, the test method is ASTM.

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**EASTMAN Copolyester Z6006**
Preliminary Data Sheet

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.2
Density	ISO 1183	1.19 g/cm ³
Mold Shrinkage Parallel to Flow, 3.2-mm (0.125-in.) thickness	D 955	0.002-0.006 mm/mm (0.002-0.006 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	44 MPa (6400 psi)
Tensile Stress @ Break	D 638	50 MPa (7300 psi)
Elongation @ Yield	D 638	5%
Elongation @ Break	D 638	300%
Flexural Modulus	D 790	2000 MPa (2.9 x 10 ⁵ psi)
Flexural Yield Strength	D 790	67 MPa (9700 psi)
Rockwell Hardness, R Scale	D 785	105
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	350 J/m (6.4 ft·lbf/in.)
@ -40°C (-40°F)	D 256	60 J/m (1.1 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	45 J (33 ft·lbf)
@ -40°C (-40°F)	D 3763	48 J (35 ft·lbf)
Mechanical Properties (ISO Method)		
Tensile Stress @ Yield	ISO 527	45 MPa
Tensile Stress @ Break	ISO 527	46 MPa
Elongation @ Yield	ISO 527	4%
Elongation @ Break	ISO 527	200%
Flexural Modulus	ISO 178	1800 MPa
Flexural Strength	ISO 178	64 MPa
Izod Impact Strength, Notched		
@ 23°C	ISO 180	29.6 kJ/m ²
@ -40°C	ISO 180	6.3 kJ/m ²
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C	ISO 6603-2	71 J

@ -40°C

ISO 6603-2 55 J

Thermal Properties

Deflection Temperature

@ 0.455 MPa (66 psi)

D 648

73°C (164°F)

@ 1.82 MPa (264 psi)

D 648

65°C (149°F)

Thermal Properties (ISO Method)

Deflection Temperature

@ 0.455 MPa (66 psi)

ISO 75

73°C

@ 1.82 MPa (264 psi)

ISO 75

66°C

Optical Properties

Haze

D 1003

0.3%

Regular Transmittance

D 1003

89%

Total Transmittance

D 1003

91%

Typical Processing Conditions

Drying Temperature

70°C (160°F)

Drying Time

3 hrs

Processing Melt Temperature

250-290°C (480-550°F)

Mold Temperature

15-30°C (60-80°F)

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

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Product Data Sheet

Eastman Copolyester Z6011

Application/Uses

- Injection molding

Product Description

Eastman Copolyester Z6011 is a product useful for injection molding applications.

Typical Properties (Preliminary)

Property ^a	Test ^b Method	Typical Value, Units ^c
General Properties		
Specific Gravity	D 792	1.27
Water Absorption, 24 h immersion	D 570	0.13%
Mold Shrinkage Parallel to Flow, 3.2-mm (0.125-in.) thickness	D 955	0.002-0.005 mm/mm (0.002-0.005 in./in.)
Thermal Properties		
Deflection Temperature		
@ 0.455 MPa (66 psi)	D 648	69°C (157°F)
@ 1.82 MPa (264 psi)	D 648	60°C (140°F)
Thermal Properties (ISO Method)		
Deflection Temperature		
@ 0.455 MPa (66 psi)	ISO 75	69°C
@ 1.82 MPa (264 psi)	ISO 75	62°C
Mechanical Properties		
Tensile Stress @ Break	D 638	30 MPa (4300 psi)
Tensile Stress @ Yield	D 638	49 MPa (7100 psi)

Elongation @ Break	D 638	150%
Elongation @ Yield	D 638	4.3%
Tensile Modulus	D 638	2010 MPa
Flexural Strength	D 790	71 MPa (10000 psi)
Flexural Modulus	D 790	2200 MPa (3 x 10 ⁵ psi)
Rockwell Hardness, R Scale	D 785	106
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	98 J/m (1.8 ft·lbf/in.)
@ -40°C (-40°F)	D 256	27 J/m (0.5 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB

Mechanical Properties (ISO Method)

Tensile Strength @ Yield	ISO 527	49 MPa
Tensile Strength @ Break	ISO 527	27 MPa
Elongation @ Yield	ISO 527	4%
Elongation @ Break	ISO 527	110%
Tensile Modulus	ISO 527	2020 MPa
Flexural Modulus	ISO 178	2100 MPa
Flexural Strength	ISO 178	69 MPa
Izod Impact Strength, Notched		
@ 23°C	ISO 180	8.1 kJ/m ²
@ -40°C	ISO 180	3.9 kJ/m ²

Optical Properties

Haze	D 1003	0.3%
Total Transmittance	D 1003	91%

Typical Processing Conditions

Drying Temperature	71°C (160°F)
Drying Time	4-6 hrs
Processing Melt Temperature	249-271°C (480-520°F)
Mold Temperature	16-38°C (60-100°F)

^a Unless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^b Unless noted otherwise, the test method is ASTM.

^c Units are in SI or US customary units.

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**EASTAR Copolyester Z6013
Technical Data Sheet**

性能 ^a	测试 ^b 方法	典型数据, 单位 ^c
基本性能		
比重	D 792	1.27 g/cm ³
模具收缩率 平行于流动方向, 3.2-mm (0.125-in.) 厚度	D 955	0.002-0.005 mm/mm (0.002-0.005 in./in.)
机械性能		
拉伸强度 @ 屈服	D 638	50 MPa (7300 psi)
拉伸强度 @ 断裂	D 638	28 MPa (4100 psi)
伸长率 @ 屈服	D 638	4%
伸长率 @ 断裂	D 638	110%
弯曲模量	D 790	2100 MPa (3.0 x 10 ⁵ psi)
弯曲屈服模量	D 790	68 MPa (9900 psi)
洛氏硬度, R Scale	D 785	108
Izod 冲击强度, 缺口^d		
@ 23°C (73°F)	D 256	94 (9C/1NB) J/m (1.8 (9C/1NB) ft·lbf/in.)
@ -40°C (-40°F)	D 256	53 J/m (1.0 ft·lbf/in.)
冲击强度, 无缺口^e		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	NB

Impact Resistance (Puncture), Energy @ Max. Load ^f		
@ 23°C (73°F)	D 3763	36 J (24 ft·lbf)
@ -40°C (-40°F)	D 3763	35 J (30 ft·lbf)

热性能

热变形温度		
@ 0.455 MPa (66 psi)	D 648	70°C (153°F)
@ 1.82 MPa (264 psi)	D 648	62°C (144°F)
维卡软化温度 @ 1 kg 负载	D 1525	83°C (174°F)

光学性能

雾度	D 1003	0.6%
通常透光率	D 1003	87%
总透光率	D 1003	90%
光泽度 @ 60°	D 2457	152
颜色, b* CIELAB, Illuminant D6500, 10° Observer	D 2244	0.61

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

^cUnits are in SI or US customary units.

^dTesting conducted using 10 standard flex bars with 20 mil notch; C = complete break; NB = nonbreak.

^eNonbreak as defined by ASTM D 4812.

^fTesting conducted using 10 standard 4" x 4" x 0.125" thick injection molded plaques; 100% ductile break.

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EASTMAN Copolyester Z6018 Preliminary Data Sheet

Property ^a	Test ^b Method	Typical Value, Units ^c
Specific Gravity	D 792	1.23
Mold Shrinkage Parallel to Flow	D 955	0.004 mm/mm (0.004 in./in.)
Mechanical Properties		
Tensile Stress @ Yield	D 638	45 MPa (6500 psi)
Tensile Stress @ Break	D 638	44 MPa (6400 psi)
Elongation @ Yield	D 638	5%
Elongation @ Break	D 638	250%
Flexural Modulus	D 790	1950 MPa (2.8 x 10 ⁵ psi)
Flexural Strength	D 790	66.5 MPa (9650 psi)
Rockwell Hardness, R Scale	D 785	102
Izod Impact Strength, Notched		
@ 23°C (73°F)	D 256	NB
@ -40°C (-40°F)	D 256	74 J/m (1.4 ft·lbf/in.)
Impact Strength, Unnotched		
@ 23°C (73°F)	D 4812	NB
@ -40°C (-40°F)	D 4812	480 J/m (9.0 ft·lbf/in.)
Impact Resistance (Puncture), Energy @ Max. Load		
@ 23°C (73°F)	D 3763	55 J (41 ft·lbf)
@ -40°C (-40°F)	D 3763	76 J (56 ft·lbf)
Optical Properties		
Haze	D 1003	0.3%
Total Transmittance	D 1003	90%
Typical Processing Conditions		
Drying Temperature		75°C (165°F)
Drying Time		6 hrs
Processing Melt Temperature		250-270°C (480-520°F)
Mold Temperature		15-40°C (60-100°F)

^aUnless noted otherwise, all tests are run at 23°C (73°F) and 50% relative humidity.

^bUnless noted otherwise, the test method is ASTM.

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