

Baytec® OCS 080D

Polyurethane (Polyester, MDI)

Covestro - PUR

Message:

Baytec OCS 080D is a two-component polyurethane/-urea system that yields an optically clear solid elastomer. The isocyanate component A is an aliphatic isocyanate-terminated (rMDI) polyester prepolymer, and the polyol component is a proprietary polyester formulation. The Baytec OCS 080D system can be used to produce highly transparent, optical/ballistic-grade parts for applications ranging from ophthalmic lenses to bulletproof enclosures. As with any product, the Baytec OCS 080D system must be tested (including field testing, etc) in advance by the user to determine suitability for a given application.

General Information			
Forms	Liquid		
Physical	Nominal Value	Unit	Test Method
Density	1.11	g/cm³	ASTM D1505
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D)	81		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength	59.5	MPa	ASTM D638
Flexural Modulus	1720	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	70	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (0.45 MPa, Unannealed)	68.1	°C	ASTM D648
Optical	Nominal Value	Unit	Test Method
Refractive Index	1.530		ASTM D542
Transmittance	92.0	%	ASTM D1003
Haze	< 0.50	%	ASTM D1003
Abbe Number	43.0		
Thermoset	Nominal Value		
Thermoset Components ¹			
Component a	Mixing ratio by weight: 170		
Component B	Mixing ratio by weight: 100		
Additional Information			

Part A

Type: Isocyanate

Appearance: Colorless to pale yellow liquid

Specific Gravity @ 25°C: 1.086

Viscosity @25°C: 1378 mPa

Flash Point, PMCC: >93°C

NCO: 19.6 to 20.3 wt%

Bulk Density at 25°C: 9.05 lb/gal

Part B

Type: Polyol

Appearance: Yellow liquid

Specific Gravity @ 25°C: 1.04

Viscosity @25°C: 680 mPa-s

Flash Point, PMCC: >93°C

Bulk Density at 25°C: 8.62 lb/gal

Isocyanate Temperature: 25 to 50°C Polyol Temperature: 25 to 50°C Mold Temperature: 110°C Gel Time: 1:45 min Postcure Temperature: 110°C Demold Time: 2 to 4 min Postcure Time: 16 hr

NOTE

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