ExxonMobil

Achieve™ Advanced PP7945E1

Polypropylene Impact Copolymer

Product Description

Achieve™ Advanced PP7945E1 is a high crystallinity, low impact strength copolymer resin designed for compounding base or injection molding applications requiring very high melt flow rate.

General

Availability [1]	▪ Asia Pacific		
Features	▪ High Flow	▪ High Stiffness	▪ Nucleated
Uses	▪ Automotive Applications	▪ Compounding	
Appearance	▪ Natural Color		
Form(s)	▪ Pellets		
Processing Method	▪ Compounding	▪ Injection Molding	
Revision Date	▪ 04/19/2022		

Physical	Typical Value (English)		Typical Value (SI)		Test Based On
Density	0.900	g/cm³	0.900	g/cm³	ExxonMobil Method
Melt Mass-Flow Rate (MFR) (230°C/2.16 kg)	115	g/10 min	115	g/10 min	ExxonMobil Method

Mechanical	Typical Value (English)		Typical Value (SI)		Test Based On
Tensile Stress at Yield	4670	psi	32.2	MPa	ISO 527-2
Tensile Strength at Break [2]					ASTM D638
2.0 in/min (51 mm/min)	4390	psi	30.3	MPa	
Tensile Strain at Yield	4.0	%	4.0	%	ISO 527-2
Elongation at Break [3]	5.1	%	5.1	%	ASTM D638
Flexural Modulus - 1% Secant					
0.051 in/min (1.3 mm/min)	261000	psi	1800	MPa	ASTM D790A
0.51 in/min (13 mm/min)	291000	psi	2010	MPa	ASTM D790B
Flexural Modulus (0.079 in/min (2.0 mm/min))	263000	psi	1810	MPa	ISO 178

Impact	Typical Value (English)		Typical Value (SI)		Test Based On
Notched Izod Impact					ASTM D256A
0°F (-18°C)	0.41	ft·lb/in	22	J/m	
73°F (23°C)	0.60	ft·lb/in	32	J/m	
Notched Izod Impact Strength					ISO 180/1A
0°F (-18°C)	0.95	ft·lb/in²	2.0	kJ/m²	
32°F (0°C)	1.2	ft·lb/in²	2.6	kJ/m²	
73°F (23°C)	2.1	ft·lb/in²	4.5	kJ/m²	
Charpy Notched Impact Strength					ISO 179/1eA
-4°F (-20°C)	0.81	ft·lb/in²	1.7	kJ/m²	
32°F (0°C)	1.1	ft·lb/in²	2.4	kJ/m²	
73°F (23°C)	2.0	ft·lb/in²	4.3	kJ/m²	

Thermal	Typical Value (English)		Typical Value (SI)		Test Based On
Heat Deflection Temperature (1.80 MPa) Flatwise	135	°F	57.0	°C	ExxonMobil Method
Heat Deflection Temperature (0.45 MPa) Flatwise	235	°F	113	°C	ExxonMobil Method
Deflection Temperature Under Load (DTUL) at 66psi - Unannealed	253	°F	123	°C	ExxonMobil Method
DTUL (66 psi) - Annealed	262	°F	128	°C	ExxonMobil Method

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Hardness	Typical Value (English)	Typical Value (SI)	Test Based On
Rockwell Hardness	109	109	ASTM D785

Additional Information

Data Traceability: 202011.0470-02 (BCT-312146, BCT-336349) and 202108.0128-02 (BCT-340529)

Legal Statement

Contact your ExxonMobil Chemical Customer Service Representative for potential food contact application compliance (e.g. FDA, EU, HPFB).

This product, including the product name, shall not be used or tested in any medical application without the prior written acknowledgement of ExxonMobil Chemical as to the intended use. For detailed Product Stewardship information, please contact Customer Service.

Notes

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

[1] Product may not be available in one or more countries in the identified Availability regions. Please contact your Sales Representative for complete Country Availability.

[2] 2.0 in/min

[3] 2.0 in/min (51 mm/min)

For additional technical, sales and order assistance: www.exxonmobilchemical.com/ContactUs

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