Eastar™ AN004, Natural

Copolyester

Eastman Chemical Company

Message:

Eastar™ AN004 Copolyester contains a mold release. It has excellent appearance and is nearly water-clear. Its most outstanding features are its chemical resistance and processing capabilities. Exposure to aromatic oils often causes crazing or actual fracture of many polymer resins, but AN004 maintains its physical properties when exposed to these oils, and its appearance is virtually unchanged. Easy to process, it flows readily and fills intricate molds. Its processability coupled with its outstanding chemical resistance makes it well suited for thick-wall applications.
This product has been GREENGUARD INDOOR AIR QUALITY CERTIFIED®.
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This product has been CRADLE TO CRADLE CERTIFIED(cm)
The CRADLE TO CRADLE CERTIFIED(cm) Mark is a registered certification mark used under license through McDonough Braungart Design Chemistry (MBDC). MBDC is a global sustainability consulting and product certification firm. The CRADLE TO CRADLE® framework moves beyond the traditional goal of reducing the negative impacts of commerce (‘eco-efficiency'), to a new paradigm of increasing its positive impacts (‘eco-effectiveness'). At its core, Cradle to Cradle design perceives the safe and productive processes of nature's ‘biological metabolism' as a model for developing a ‘technical metabolism' flow of industrial materials. Product components can be designed for continuous recovery and reutilization as biological and technical nutrients within these metabolisms. For more information about MBDC and to obtain printable certificates for Eastman Copolyesters, visit http://www.mbdc.com.

General Information	
UL YellowCard	E118289-220108
Additive	Mold Release
Features	Barrier Resin
	Good Chemical Resistance
	Good Colorability
	Good Flow
	Good Impact Resistance
	Good Mold Release
	Good Processability
	Good Stiffness
	Good Toughness
	High Clarity
	High Gloss
Uses	Bottles
	Caps
	Cosmetic Packaging
	Packaging
	Personal Care
	Thick-walled Parts
Appearance	Natural Color

Forms	Pellets		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Specific Gravity	1.20	g/cm³	ASTM D792
Molding Shrinkage - Flow (3.20 mm)	0.20 to 0.60	%	ASTM D955
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale, 23°C)	103		ASTM D785
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus (23°C)	1800	MPa	ISO 527-2
Tensile Strength			
Yield, 23°C	47.0	MPa	ASTM D638, ISO 527-2
Break, 23°C	51.0	MPa	ASTM D638
Break, 23°C	46.0	MPa	ISO 527-2
Tensile Elongation			
Yield, 23°C	5.0	%	ASTM D638
Yield, 23°C	4.0	%	ISO 527-2
Break, 23°C	320	%	ASTM D638
Break, 23°C	200	%	ISO 527-2
Flexural Modulus			
23°C	2000	MPa	ASTM D790
23°C	1850	MPa	ISO 178
Flexural Stress			
23°C	65.0	MPa	ISO 178
Yield, 23°C	69.0	MPa	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact			
-40°C	40	J/m	ASTM D256
23°C	80	J/m	ASTM D256
-40°C	4.8	kJ/m²	ISO 180
23°C	7.8	kJ/m²	ISO 180
Unnotched Izod Impact			ASTM D4218
-40°C	No Break		
23°C	No Break		
Instrumented Dart Impact			ASTM D3763
-40°C, Energy at Peak Load	48.0	J	
23°C, Energy at Peak Load	42.0	J	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed	73.0	°C	
1.8 MPa, Unannealed	65.0	°C	
Optical	**Nominal Value**	**Unit**	**Test Method**
Transmittance			ASTM D1003

Total	91.0	%	
Regular	89.0	%	
Haze	0.30	%	ASTM D1003

Injection	Nominal Value	Unit
Drying Temperature	70.0	°C
Drying Time	3.0	hr
Processing (Melt) Temp	230 to 280	°C
Mold Temperature	15.0 to 30.0	°C

Recommended distributors for this material

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