ECOZEN® YF 300

SK Chemicals - *Bio-based Copolyester*

General Information

Product Description

ECOZEN YF 300 is eco-friendly bio copolyester which is created using natural materials based on the extract from plant or vegetable materials therefore it does not include environmental hormone bisphenol A (BPA) is a controversial never-ending human hazards. Also it is one of the excellent resins which have chemical resistance and food-stain resistance among the transparent resin used in food contact applications and its low oxygen permeability is useful for food storage container such as the airtight container.

ECOZEN YF 300 has various food contact related use of certification such as FDA (Food Contact Notification (FCN) No. 1075), NSF (the United States), EFSA (EU), JHOSPA (Japan), NHFPC (China) and KFDA (South Korea) and it has also the certification of bioplastics such as BETA certification.

ECOZEN YF 300 is obtained the GOLD Level for Cradle to Cradle (C2C) certification (the United States) and certified by the external environment-friendly products. SK Chemicals Company has obtained the GOLD Level as the world's first and only chemical resin supplier.

Key Attributes

- BPA / Phthalate free
- Excellent Heat Resistance
- Excellent Chemical & Stain Resistance
- Excellent Impact Strength
- High Flexural Strength
- High Transparency and Gloss
- Low Processing Temperature
- Less Residual Stress

Applications / Uses

- Food Container
- Airtight Container
- Baby Food Container
- Food Bowl
- Mixer & Blender
- Sports Bottle, Water Bottle, Juice Bottle etc.

Approvals
FDA : Food and Drug Administration
NSF : National Sanitation Foundation
EFSA : European Food Safety Authority
JHOSPA : Japan Hygienic Olefin and Styrene Plastics Association
NHFPC : National Health and Family Planning Commission
BEAT Analytic Inc. : ISO/IEC 17025:2005 Accredited Radiocarbon Dating Laboratory

General

Material Status	• Commercial: Active		
Availability	• Asia Pacific	• Europe	• North America
Features	• BPA Free • Chemical Resistant • Good Heat Resistance	• Good Impact Resistance • Good Strength • High Gloss	• Renewable Resource Content • Stain Resistant
Uses	• Appliance Components • Bottles	• Food Containers • Fruit Juice Bottles	• Non-specific Food Applications
Agency Ratings	• Cradle to Cradle (C2C) Gold • EU EFSA • FDA FCN 1075	• JHOSPA • KFDA • NHFPC	• NSF
Processing Method	• Injection Molding		

Properties [1]

Physical	Nominal Value	Unit	Test Method

Density / Specific Gravity	1.27		ASTM D792
Molding Shrinkage - Flow	2.0E-3 to 5.0E-3	in/in	ASTM D955
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Strength [2] (Yield)	7400	psi	ASTM D638
Tensile Strength [2] (Break)	6380	psi	ASTM D638
Tensile Elongation [2] (Yield)	6.8	%	ASTM D638
Tensile Elongation [2] (Break)	150	%	ASTM D638
Flexural Modulus [3]	316000	psi	ASTM D790
Flexural Strength [3]	12600	psi	ASTM D790
Impact	**Nominal Value**	**Unit**	**Test Method**
Notched Izod Impact (73°F)	No Break		ASTM D256
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	119		ASTM D785
Thermal	**Nominal Value**	**Unit**	**Test Method**
Deflection Temperature Under Load (66 psi, Unannealed)	212	°F	ASTM D648
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (0.13 in)	V-2		UL 94
Optical	**Nominal Value**	**Unit**	**Test Method**
Light Transmittance	88.0	%	ASTM D1003
Haze	< 1.00	%	ASTM D1003

Notes

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

[2] 2.0 in/min

[3] 0.050 in/min