Typical Properties for ECOZEN® YH 301

ECOZEN YH series : Hair & Make-up (Cosmetics)

Product Description

ECOZEN YH 301 takes the advantages of transparent plastics such as PC, PMMA, PETG (Polyethylene Terephthalate Glycol) and complements the shortcomings of those plastics. Also, it has transparency as PC (Polycarbonate) but no harmful substances like BPA (Bisphenol A) and has excellent impact strength than PMMA. This improves flow rate and mold release of products in the plastics manufacturing process. It has the most excellent chemical resistance to substances of cosmetics in a transparent and glass feeling plastics container. Also it has the lowest oxygen permeability of transparent plastics so that it can increase the shelf life of cosmetics. It is easy to apply to Printing, Hot stamping, and Metal deposition (metal evaporation coating) etc. and it shows the solid grip of the vessel.
ECOZEN YH 301 is obtained in SVHC and RoHS certification (EU) and received certification from various harmful substances and environmental regulation substances. It 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

- Enable Variety Color Patterns
- Excellent Chemical & Stain Resistance
- Excellent Impact Strength
- High Transparency and Gloss
- Easy to Processing

Applications / Uses

- Cosmetic bottle
- Cream jar, Over cap etc.
- Perfume bottle and cap
- Skin care bottle
- Hair & make-up tools case

※ Approvals

SVHC : Substance of Very High Concern
RoHS : Restriction of the use of certain Hazardous Substance

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The information in this data sheet is, to the best of our knowledge, true and accurate. The representations about the product are based upon test results achieved under laboratory practices supervised and controlled by SK chemicals corporation.

Property	Test Method	Unit	Typical Values
Specific Gravity	**ASTM D792**	**-**	**1.27**
Mold Shrinkage (Parallel to Flow)	**ASTM D955**	**%**	**0.2~0.5**
Rockwell Hardness	**ASTM D785**	**R-scale**	**119**
Mechanical			
Tensile Strength @ Yield 50mm/min (2 inch/min)	**ASTM D638**	**MPa (kgf/cm^2)**	**51 (520)**
Tensile Strength @ Break 50mm/min (2 inch/min)	**ASTM D638**	**MPa (kgf/cm^2)**	**44 (450)**
Elongation @ Yield 50mm/min (2 inch/min)	**ASTM D638**	**%**	**6.8**
Elongation @ Break 50mm/min (2 inch/min)	**ASTM D638**	**%**	**150**
Flexural Strength 1.27mm/min (0.05 inch/min)	**ASTM D790**	**MPa (kgf/cm^2)**	**87 (890)**
Flexural Modulus 1.27mm/min (0.05 inch/min)	**ASTM D790**	**MPa (kgf/cm^2)**	**2,180 (22,200)**
Izod Impact Strength, Notched @ 23 °C(73 °F)	**ASTM D256**	**J/m**	**No Break**
Thermal			
Heat Distortion Temperature @ 0.455 MPa(66 psi)	**ASTM D648**	**℃ (℉)**	**100 (212)**
Optical			
Haze	**ASTM D1003**	**%**	**< 1.0**
Transmittance	**ASTM D1003**	**%**	**88**

The data listed here is preliminary data sheet of product. Therefore this sheet should not be used to establish specification limits or used alone as a basis for design. This information is not intended as a warranty of any kind. Customers must make their own representative test and assume all risks of use, whether used alone or in combination with other products. SK Chemicals assumes no obligation or liability of any advice furnished by it or results obtained with respect to these products. All warranties of merchantability for a particular purpose or use are excluded and disclaimed.

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