



## Product Information

### SOLARENE<sup>®</sup> HIPS, H-724

#### **Description**

**SOLARENE<sup>®</sup>** H-724 is a very high impact polystyrene for the extrusion process. This grade has been designed to be blended with general purpose (such as Solarene's G-116 G-126 or G-144) at higher levels than could be achieved by some comparable high impact polystyrenes. The good melt strength of this grade makes it particularly suited for deep-draw thermoforming.

#### **Applications**

**SOLARENE<sup>®</sup>** H-724 is useful to multi-layer sheet, deep-draw container, food trays trays, heat resistant thermoformed products and home electric parts etc.

#### **Supplied and storage**

**SOLARENE<sup>®</sup>** H-724 should be kept in its original packages in cool and dry place. Avoid direct exposure to sunlight. **SOLARENE<sup>®</sup>** H-724 can be stored in silos.

#### **Food contact**

The composition of **SOLARENE<sup>®</sup>** H-724 complies with 21CFR.SEC.177.1640 in FDA regulations, as well as the registered by as follows;

- A confirmation certificate for PL (Products Liability)
  - approved by JHOSPA (Japan Hygienic Olefin & Styrene Plastics Association)
  - file number : E-08
  - registration number : [A]SZa-0584-L

#### **Standard properties**

The statement in the document are based on our present technical knowledge, experience and data selected from the literature. All tests carried out at 23°C unless otherwise stated by own test methods. Mechanical properties are measured on injection molded tests specimens. Neither do they imply any binding assurance of stability for a particular purpose.

#### **>> Typical Value for Product**

##### **Head Office**

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463-811, Korea

##### **Petrochemical Factory**

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tel) 82.52.279.0570~3, fax) 82.52.279.0506

**HYUNDAI-EP**

QA630-31203



## Typical Value for Product

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Test item	Unit	Test method		Typical value	
		ISO	ASTM	ISO	ASTM
<b><u>Mechanical properties</u></b>					
Tensile stress at yield	MPa	527	D638	25	
Tensile stress at break	MPa	527	D638	24	
Tensile strain at yield	%	527	D638	0.7	
Tensile strain at break	%	527	D638	65	
Young's modulus	MPa	527	D638	1,765	
Flexural strength	MPa	178	D790	43	
Flexural modulus	MPa	178	D790	2,157	
Charpy impact strength(23°C/-30°C)	kJ/m <sup>2</sup>	179	-	109/121	
Charpy notched impact strength(23°C/-30°C)	kJ/m <sup>2</sup>	179	D6110	12.7/8.5	
IZOD impact notched strength(23°C)	kJ/m <sup>2</sup>	180	D256	13	
IZOD impact notched strength(-23°C)	kJ/m <sup>2</sup>	180	D256	-	
Rockwell hardness(L scale)	-	2039	D785	65	
<b><u>Rheological Properties</u></b>					
Melt flow index(200°C-5kg)	g/10min	1133	D1238	5	
Molding shrinkage(along chain)	%	Injection	Injection	.6	
Molding shrinkage(across chain)	%	injection	injection	.5	
<b><u>Thermal properties</u></b>					
VICAT softening temp., (B/50)	°C	306	D1525	97	
Heat distortion temp., (1.8MPa)	°C	75	D648	75	
<b><u>Optical properties</u></b>					
Haze(Injection Mold Specimen)	%		D1003	-	
Yellow index(Pellets)	-		D1925	-	
<b><u>Burning properties</u></b>					
Flammability, 1.6t	Class		UL94		HB
3.2t	Class		UL94		HB

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## Certificate

### SOLARENE<sup>®</sup> HIPS, H-724

Items	Specification	Typical value
<b><u>Material Test</u></b>		
lead(Pb), ppm	less than 100 as total amount	Not detected
cadmium(Cd), ppm		Not detected
mercury(Hg), ppm		Not detected
Hexavalent Chrome, ppm		Not detected
<b><u>Volatiles</u></b>		
styrene, ppm	less than 5,000 as total amount	320
toluene, ppm		not detected
ethylbenzene, ppm		80
iso-propylbenzene, ppm		not detected
n-propylbenzene, ppm		not detected
<b><u>Extraction Test</u></b>		
heavy metals as Pb, ppm	less than 1	non detected
evaporation residue		
n-heptane, ppm	less than 240	40
20% ethanol, ppm	less than 30	5
distilled water, ppm	less than 30	3
4% acetic acid, ppm	less than 30	5
KMnO4 consumption, ppm	less than 10	1

#### Note

- SOLARENE H-835 Grade comply with CFR21.177.1640 in FDA Ministry of Health and Welfare Notification NO. 370 in Japan, KFDA Notification NO. 98-60 in Korea.
- The statement in the document are based on our present technical knowledge experience.

**Kwang.Hwan-Kim**

Leader of QA Team

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