

 HYUNDAI ENGINEERING PLASTICS**Product Information****SOLARENE[®] HIPS, H-724****Description**

SOLARENE[®] 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[®] H-724 is useful to multi-layer sheet, deep-draw container, food trays, heat resistant thermoformed products and home electric parts etc.

Supplied and storage

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

Food contact

The composition of **SOLARENE[®]** 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**

5F, 102 Dong, I PARK, #9, Jeongja-Dong, Bundang-Gu, Seongnam,
463-811, Korea

Petrochemical Factory

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HYUNDAI-EP
QA630-31203

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Typical Value for Product
SOLARENE[®] HIPS, H-724

Test item	Unit	Test method		Typical value	
		ISO	ASTM	ISO	ASTM
<u>Mechanical properties</u>					
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℃/-30℃)	kJ/m²	179	-	109/121	
Charpy notched impact strength(23℃/-30℃)	kJ/m²	179	D6110	12.7/8.5	
IZOD impact notched strength(23℃)	kJ/m²	180	D256	13	
IZOD impact notched strength(-23℃)	kJ/m²	180	D256	-	
Rockwell hardness(L scale)	-	2039	D785	65	
<u>Rheological Properties</u>					
Melt flow index(200℃-5kg)	g/10min	1133	D1238	5	
Molding shrinkage(along chain)	%	Injection	Injection	.6	
Molding shrinkage(across chain)	%	injection	injection	.5	
<u>Thermal properties</u>					
VICAT softening temp., (B/50)	℃	306	D1525	97	
Heat distortion temp., (1.8MPa)	℃	75	D648	75	
<u>Optical properties</u>					
Haze(Injection Mold Specimen)	%		D1003	-	
Yellow index(Pellets)	-		D1925	-	
<u>Burning properties</u>					
Flammability, 1.6t	Class	UL94		HB	
3.2t	Class	UL94		HB	

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Certificate
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Items		Specification	Typical value
<u>Material Test</u>			
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
<u>Volatiles</u>			
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
<u>Extraction Test</u>			
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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