KUMHO PETROCHEMICAL

beyond the best

Technical Data Sheet

HIPS(High Impact Poly Styrene)
HI 425EP

Features ESCR, Deep draw thermoforming

Applications Door liner, Refrigerator inner liner

Physical	Test Method	Value
Density	ASTM D792	1.03 g/cm^3
Melt Flow Index (200℃, 5kg)	ASTM D1238	3.2 g/10min
Mold Shrinkage	ASTM D955	0.3 ~ 0.6 %
Water absorption	ASTM D570	0.03 %

Mechanical	Test Method	Value
Tensile Strength	ASTM D638	235 kg/cm^2 (3,337) (psi)
Elongation	ASTM D638	60 %
Flexural Strength	ASTM D790	310 kg/cm^2 (4,402) (psi)
Flexural Modulus	ASTM D790	15,500 kg/cm^2 (220,100) (psi)
Izod Impact Strength(3.2mm)	ASTM D256	8.0 kgcm/cm (1.48) (ft·lb/in)
Rockwell Hardness(L scale)	ASTM D785	50

Thermal	Test Method	Value
Heat Deflection Temperature(18.6kgf/cm^2)	ASTM D648	79 ℃ (172) (℉)
Vicat Softening Temperature(1kg, 50℃/h)	ASTM D1525	98 ℃ (208) (℉)

Flammability	Test Method	Value
Flame Rating - UL (1.6mm)	UL 94	HB

Notes

These are just typical properties, not specifications. Users should confirm results by their own test.

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Processing guide

Injection Guide	Unit	Value
Nozzle	℃	190~220
Front	℃	190~210
Middle	℃	180~200
Rear	℃	170~190
Hopper Throat	℃	45
Mold	℃	40~60

Extrusion Guide	Unit	Value
Zone 1	℃	170~190
Zone 2	℃	180~200
Zone 3	℃	180~210
Zone 4	℃	190~220
Zone 5	℃	200~220
Screen Changer	℃	190~210
Adaptor	℃	200
Die	℃	190~210

Drying	Unit	Value
Temperature	℃	60~70
Time	hr	1~3

Notes

These are only mentioned as general guidelines.

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