

Technical Data Sheet

HIPS(High Impact Poly Styrene) HI 425ER

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°C, 5kg)	ASTM D1238	3.5 g/10min
Mold Shrinkage	ASTM D955	0.3 ~ 0.6 %
Water absorption	ASTM D570	0.03 %

Mechanical	Test Method	Value
Tensile Strength	ASTM D638	190 kg/cm ² (2,698) (psi)
Elongation	ASTM D638	80 %
Flexural Strength	ASTM D790	230 kg/cm ² (3,260) (psi)
Flexural Modulus	ASTM D790	15,200 kg/cm ² (215,800) (psi)
Izod Impact Strength(3.2mm), 23°C	ASTM D256	11.0 kgcm/cm (2.03) (ft-lb/in)
Izod Impact Strength(3.2mm), -30°C	ASTM D256	7.0 kgcm/cm (1.29) (ft-lb/in)
Rockwell Hardness(L scale)	ASTM D785	40

Thermal	Test Method	Value
Heat Deflection Temperature(18.6kgf/cm ²)	ASTM D648	78 °C (172) (°F)
Vicat Softening Temperature(1kg, 50°C/h)	ASTM D1525	98 °C (208) (°F)

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	°C	190~220
Front	°C	190~210
Middle	°C	180~200
Rear	°C	170~190
Hopper Throat	°C	45
Mold	°C	40~60

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

Drying	Unit	Value
Temperature	°C	60~70
Time	hr	1~3

Notes

These are only mentioned as general guidelines.