KUMHO PETROCHEMICAL

beyond the best

Technical Data Sheet

HIPS(High Impact Poly Styrene)
HI 425

Features High impact strength, General purpose

Applications Office equipment, Electronic home appliances, Toys, Kitchen utensils, Miscellaneous goods, Leisure goods

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

Mechanical	Test Method	Value
Tensile Strength	ASTM D638	250 kg/cm^2 (3,550) (psi)
Elongation	ASTM D638	40 %
Flexural Strength	ASTM D790	300 kg/cm^2 (4,260) (psi)
Flexural Modulus	ASTM D790	17,000 kg/cm^2 (241,400) (psi)
Izod Impact Strength(3.2mm)	ASTM D256	9.0 kgcm/cm (1.67) (ft·lb/in)
Rockwell Hardness(L scale)	ASTM D785	60

Thermal	Test Method	Value
Heat Deflection Temperature(18.6kgf/cm^2)	ASTM D648	77 ℃ (170) (℉)
Vicat Softening Temperature(1kg, 50℃/h)	ASTM D1525	97 ℃ (206) (℉)

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

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

Notes

These are only mentioned as general guidelines.

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