

## Technical Data Sheet

# FR HIPS(Flame retardant High Impact Poly Styrene) HFH 412 V

**Features** High impact, Non-Deca type  
**Applications** OA housing, Electronics

Physical	Test Method	Value
Density	ASTM D792	1.06 g/cm <sup>3</sup>
Melt Flow Index (200°C, 5kg)	ASTM D1238	15 g/10min
Mold Shrinkage	ASTM D955	0.3 ~ 0.6 %
Water absorption	ASTM D570	0.5 %
Mechanical	Test Method	Value
Tensile Strength	ASTM D638	240 kg/cm <sup>2</sup> (3,410) (psi)
Elongation	ASTM D638	40 %
Flexural Strength	ASTM D790	320 kg/cm <sup>2</sup> (4,550) (psi)
Flexural Modulus	ASTM D790	21,000 kg/cm <sup>2</sup> (298,000) (psi)
Izod Impact Strength(3.2mm)	ASTM D256	9 kgcm/cm (1.6) (ft-lb/in)
Rockwell Hardness(L scale)	ASTM D785	60
Thermal	Test Method	Value
Heat Deflection Temperature(18.6kgf/cm <sup>2</sup> )	ASTM D648	75 °C (167) (°F)
Vicat Softening Temperature(1kg, 50°C/h)	ASTM D1525	89 °C (192) (°F)
Flammability	Test Method	Value
Flame Rating - UL (0.8mm, 1.0mm, 3.2mm)	UL 94	V-2

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**Molding Condition**

Injection Guide	Unit	Value
Nozzle	°C	200~220
Front	°C	200~220
Middle	°C	200~220
Rear	°C	190~210
Hopper Throat	°C	45
Mold	°C	40~60

  

Drying	Unit	Value
Temperature	°C	60~80
Time	hr	2~4

**Notes**

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

**Processing**

HFH 412 V can be injection molded under different conditions depending on machinery available and articles molded. It is suitable for gas assisted injection molding.

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