

**HFA 451**

ABS

Kumho Petrochemical Co., Ltd.

<b>Processing/Physical Characteristics</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ASTM Data</b>			
Melt Flow Index, MFI	<b>120</b>	g/10min	ASTM D 1238
Temperature	<b>200</b>	°C	-
Load	<b>21.6</b>	kg	-
Mold Shrinkage, MD	<b>0.0055</b>	mm/mm	ASTM D 955
<b>Mechanical properties</b>			
<b>ASTM Data</b>			
Tensile Strength	<b>39.2</b>	MPa	ASTM D 638
Flexural Modulus	<b>2255</b>	MPa	ASTM D 790
Flexural Strength	<b>58.8</b>	MPa	ASTM D 790
Rockwell Hardness	<b>R 100</b>	-	ASTM D 785
Izod Impact unnotched, 1/8 in	<b>198</b>	J/m	ASTM D 256
<b>Thermal properties</b>			
<b>ASTM Data</b>			
UL 94 Flame rating	<b>V-0</b>	-	UL 94
Thickness tested	<b>1.59</b>	mm	-
DTUL @ 264 psi	<b>76.1</b>	°C	ASTM D 648
Vicat Temperature	<b>91.1</b>	°C	ASTM D 1525
<b>Other properties</b>			
Density	<b>1180</b>	kg/m <sup>3</sup>	ASTM D 792
<b>Processing Recommendation Injection Molding</b>			
Pre-drying - Temperature	<b>60 - 80</b>	°C	-
Pre-drying - Time	<b>2 - 4</b>	h	-
Mold temperature	<b>40 - 60</b>	°C	-
Zone 1	<b>190 - 210</b>	°C	-
Zone 2	<b>200 - 220</b>	°C	-
Zone 3	<b>200 - 220</b>	°C	-
Nozzle temperature	<b>200 - 220</b>	°C	-

**Characteristics****Processing**

Injection Molding

**Applications**

Electrical and Electronical

**Special Characteristics**

Flame retardant

**Regional Availability**

North America, Europe, Asia Pacific