

Halar® 700 HC

ethylene chlorotrifluoroethylene copolymer

General

Material Status	• Commercial: Active	
Availability	• Africa & Middle East • Asia Pacific • Europe	• Latin America • North America
Features	• Medium Viscosity	
Forms	• Pellets	
Processing Method	• Extrusion	

Physical	Typical Value	Unit	Test method
Density / Specific Gravity	1.70		ASTM D792
Melt Mass-Flow Rate (MFR) (275°C/2.16 kg)	7.0 to 10	g/10 min	ASTM D1238
Water Absorption (Equilibrium)	< 0.10	%	ASTM D570

Mechanical	Typical Value	Unit	Test method
Tensile Modulus ¹ (23°C)	1320	MPa	ASTM D882
Tensile Strength ²			ISO 527-3
Yield, 23°C	28.5	MPa	
Break, 23°C	41.4	MPa	
Tensile Elongation ²			ISO 527-3
Yield, 23°C	5.0	%	
Break, 23°C	310	%	
Coefficient of Friction vs. Itself - Dynamic	0.20		ASTM D1894
Taber Abrasion Resistance 1000 Cycles, 500 g, CS-17 Wheel	16.5	mg	ASTM D4060

Films	Typical Value	Unit	Test method
Trouser Tear (23°C, 3.20 mm)	420.0	kN/m	DIN 53363

Hardness	Typical Value	Unit	Test method
Durometer Hardness (Shore D)	74		ASTM D2240

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Thermal	Typical Value	Unit	Test method
Brittleness Temperature	< -50.0	°C	ASTM D746A
Glass Transition Temperature	70.0	°C	ASTM D4065
Melting Temperature	200	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	180	°C	ASTM D3418
Thermal Conductivity (23°C)	0.18	W/m/K	ASTM C177
Crystallization Heat	22.7	J/g	ASTM D3418
Heat of Fusion	24.0	J/g	ASTM D3418
Thermal Stability – 1% mass loss, N2	359	°C	TGA

Electrical	Typical Value	Unit	Test method
Dielectric Strength (23°C, 3.20 mm)	14	kV/mm	ASTM D149
Dielectric Constant (23°C, 1 MHz)	2.57		ASTM D150

Flammability	Typical Value	Unit	Test method
Flame Rating	V-0		UL 94
Oxygen Index	> 52	%	ASTM D2863

Additional Information

Storage and Handling

- Halar® melt processable fluoropolymer resins can be stored without shelf life issues when kept in a clean and dry area at ambient temperatures. Opened containers should be tightly resealed to prevent any contamination.

Notes

Typical properties: these are not to be construed as specifications.

¹ 8.0 mm/min

² 500 mm/min



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