

PLEXIGLAS® zk5HF Molding Compound

PLEXIGLAS® zk6HF Molding Compound

Product Profile:

PLEXIGLAS® zk5HF and PLEXIGLAS® zk6HF are impact-modified molding compounds based on the PLEXIGLAS® zkBR series.

Besides showing the familiar properties of basic PLEXIGLAS® molding compound, such as

- high break resistance and impact strength,
- excellent weatherability,
- high surface hardness and abrasion resistance.

PLEXIGLAS® zkHF molding compounds offer the added benefit of

- very good flowing properties.

Application:

PLEXIGLAS® zk molding compounds of the HF series are suitable for injection molding as well as for extrusion of sheets and profiles.

Uses of PLEXIGLAS® zkHF molding compounds: applications involving long flow paths through narrow channels, thin-walled component parts; items requiring accurate mold surface reproduction, such as very finely textured luminaire covers.

Processing:

PLEXIGLAS® zkHF molding compound can be processed on machines with 3-zone general purpose screws for thermoplastics. Recommended processing conditions:

Predrying temperature:		max. 85 °C
Predrying time in desiccant-type drier:		2 - 3 h
Processing temperatures:	melt temperature	220 - 260 °C
	barrel temperature	220 - 260 °C
	mold temperature	50 - 70 °C

Physical Form / Packaging:

PLEXIGLAS® zk HF molding compounds are supplied as pellets of uniform size in two-ply, 25 kg polyethylene bags or in 500 kg boxes with PE lining; other packaging on request.

Properties:

	Unit	Standard	PLEXIGLAS® zk5HF	PLEXIGLAS® zk6HF
Mechanical properties				
Tensile modulus (1 mm/min)	MPa	ISO 527	2500	1900
Yield stress (50 mm/min)	MPa	ISO 527	55	45
Yield strain (50 mm/min)	%	ISO 527	4.5	5
Charpy impact strength (23°C)	kJ/m²	ISO 179	50	75
Thermal properties				
Vicat softening temperature (B/50)	°C	ISO 306	96	94
Coeff. of linear therm. expansion (0-50°C)	10 ⁻⁵ K ⁻¹	ASTM E831	9	11
Fire rating		DIN 4102	B2	B2
Rheological properties				
Melt volume rate, MVR (230/3.8)	cm³/10min	ISO 1133	8.1	4.2
Optical properties				
Transmission factor, T _{0.55}	%	DIN 5036	92	91
Refractive index		ISO 489	1.49	1.49
Other properties				
Density	g/cm³	ISO 1183	1.17	1.16

表 3 Röhm 之高流動級耐衝擊塑料。

特性	測試方法	zk 5HF	zk 6HF
屈服點抗張強度 (50 mm/min), MPa	ISO 527	49	49
理論上的斷裂點伸長率 (50 mm/min), %	ISO 527	25	50
Charpy 衝擊強度, kJ/m ²	ISO 179	50	75
透光率 (3 mm 厚度), %	DIN 5036	91	91
維卡軟化溫度 (B/50), °C	ISO 306	96	94
熔融指數 (230/3.8), cm ³ /10min	ISO 1133	8.1	4.2