

PLEXIGLAS® zk4HC Molding Compound
PLEXIGLAS® zk5HC Molding Compound
PLEXIGLAS® zk6HC Molding Compound

Product Profile:

PLEXIGLAS® zk4HC, PLEXIGLAS® zk5HC and PLEXIGLAS® zk6HC are impact-modified molding compounds.

Besides showing the familiar properties of impact-modified PLEXIGLAS® molding compound, such as

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

PLEXIGLAS® zk HC molding compounds offer the added benefit of being

- the most highly craze-resistant impact-modified PLEXIGLAS® molding compounds.

Application:

PLEXIGLAS® zk molding compounds of the HC series are suitable for extrusion and coextrusion of sheets and profiles.

Uses of PLEXIGLAS® zk HC molding compounds: extruded/coextruded sheets and profiles for automotive bodies and the sanitary sector (bathtubs and shower tubs) or crystal-clear lighting fixture covers for industrial plants that come into contact with aggressive media.

Processing:

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

Predrying temperature:	PLEXIGLAS® zk4HC	max. 95 °C
	PLEXIGLAS® zk5HC	max. 90 °C
	PLEXIGLAS® zk6HC	max. 85 °C
Predrying time in desiccant-type drier:		2 - 3 h
Processing temperatures:	melt temperature	220 - 260 °C
	barrel temperature	220 - 260 °C
	die temperature	220 - 260 °C

Physical Form / Packaging:

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

Properties:

	Unit	Standard	PLEXIGLAS® zk4HC	PLEXIGLAS® zk5HC	PLEXIGLAS® zk6HC
Mechanical properties					
Tensile modulus (1 mm/min)	MPa	ISO 527	2900	2500	2000
Yield stress (50 mm/min)	MPa	ISO 527	68	63	47
Yield strain (50 mm/min)	%	ISO 527	4.5	5	5.5
Nominal strain at break	%	ISO 527	17	28	48
Charpy impact strength (23°C)	kJ/m ²	ISO 179	25	55	80
Thermal properties					
Vicat softening temperature (B/50)	°C	ISO 306	105	100	97
Coeff. of linear therm. expansion (0-50°C)	10 ⁻⁵ K ⁻¹	ASTM E831	8	9	11
Fire rating		DIN 4102	B2	B2	B2
Rheological properties					
Melt volume rate, MVR (230/3.8)	cm ³ /10min	ISO 1133	1.1	0.7	0.4
Optical properties					
Transmission factor, τ_{D65}	%	DIN 5036	91	92	91
Refractive index		ISO 489	1.49	1.49	1.49
Other properties					
Density	g/cm ³	ISO 1183	1.18	1.17	1.16