

POLYPROPYLENE

FEBRUARY 2007 REV. 1 (67032)

DFR 110

POLYPROPYLENE COMPOUND 10 % GLASS FIBRE REINFORCED HALOGEN FREE FLAME RETARDANT

DESCRIPTION

DFR 110 is a halogen free flame retardant compound with 10 % glass fibre reinforced UL 94 V0 intended for injection moulding. The product is available in natural (**DFR 110**) but other colours can be supplied on request.

DFR 110 produces very low level of toxicity and low smoke density in the case of a fire.

APPLICATIONS

DFR 110 has been developed especially for very demanding applications in automotive industry and electrical parts (conform 2002/95/EC, RoHS directive).

- Sockets
- Electrical parts
- Miscellaneous technical components

PHYSICAL PROPERTIES¹⁾

	Typical Value*	Unit	Test Method
Melt Flow Rate (230°C/2.16 Kg)	7	g/10 min	ISO 1133
Density	1090	Kg/m ³	ISO 1183
Shrinkage (2 mm)	0,9-1,1	%	AD majoris
Stress at yield (50 mm/min)	50	MPa	ISO 527-2
Strain at yield (50 mm/min)	4	%	ISO 527-2
Tensile modulus (1 mm/min)	3200	MPa	ISO 527-2
Flexural modulus (2 mm/min)	2900	Mpa	ISO 178
Flexural strength (50 mm/min)	70	MPa	ISO 178
Heat Deflection Temp. (0,45 N/mm ²)	155	°C	ISO 75-2
	(1,80 N/mm ²)	125	°C
Ball pressure test	135	°C	NFC 61 303
Charpy impact (notched, +23°C)	6	KJ/m ²	ISO 179
Charpy impact (unnotched, +23°C)	28	KJ/m ²	ISO 179

1) Values determined on standard injection moulded specimen conditioned at 23°C and 50 % relative humidity.

* Data should not be used for specification work.

APPLICATION RELATED TESTS

FIRE PROPERTIES

	Typical Value	Unit	Test Method
Flammability	V0 (1,6 mm)	-	UL 94
	V2 (0,8 mm)	-	UL 94
Glow wire ignition test (1 mm)	775	°C	IEC 695-2-1
Glow wire test (1 mm)	960	°C	IEC 695-2-1

PROCESSING

DFR 110 is easy to process with standard injection moulding machines. Following moulding parameters should be used as guidelines.

Melt temperature:	200 - 240°C
Injection speed:	medium
Hold-on pressure:	50 - 70% of injection pressure
Mould temperature:	30 - 50°C
Pre-dry (recommended):	3 hours at 80°C

STORAGE AND HANDLING

DFR 110 should be stored in dry conditions at temperatures below 50°C and protected from UV-light.

Improper storage can initiate degradation with resulting odour generation and colour changes.

SAFETY

DFR 110 is not classified as a dangerous preparation.

Dust and fines from the product may give a risk for dust explosion. All equipment should be properly earthed.

Inhalation of dust may irritate the respiratory system and should be avoided.

During processing of the product small amounts of fumes are generated, which require proper ventilation.

RECYCLING

The product is suitable for recycling using modern methods of shredding and cleaning. In-house production waste should be kept clean to facilitate direct recycling.

A Safety Data Sheet is available on request. Please contact your AD majoris representative for more details on various aspects of safety, recovery and disposal of the product.

The recommendations and data given are based on our experience to date, but no liability can be assumed in connection with their usage.