

POLYPROPYLENE

MAXXAM[®] F 552

PP COMPOUND FOR CELLULAR INSULATION OF COMPUTER AND INSTRUMENT CABLES

DESCRIPTION

F 552 is a cellular polypropylene copolymer for high performance applications. It is designed for computer and instrument cable insulation.

F 552 has a high vicat softening temperature and, as such, is more resistant to elevated temperature deformation than are cellular polyethylene resins. During extrusion, **F552** provides an excellent surface finish and a uniform cell structure, with corresponding electrical and mechanical properties.

F 552 is fully stabilised for thermal ageing and copper contact.

ELECTRICAL PROPERTIES**

	Typical Value*	Unit	Test Method
Dielectric Constant			
1 MHz	2.18	—	IEC 250
Dissipation Factor			
1 MHz	$3 \cdot 10^{-4}$	—	IEC 250
DC Volume Resistivity, 500 V	$>1 \cdot 10^{17}$	Ω cm	IEC 93
Dielectric Strength	>30	kV/mm	IEC 243

** Measured on not expanded material

PHYSICAL PROPERTIES

	Typical Value*	Unit	Test Method
Density	904**	kg/m ³	ISO 1183-D
Melt Flow Rate MFR (230°C/2.16 kg)	5.5**	g/10 min	ISO 1133 Cond. 4
Tensile Strength at yield	35/13**	MPa	ISO 527/1A
Elongation at yield	8/700**	%	ISO 527/1A
Vicat Softening Temperature	151	°C	ISO 306
Heat Deflection Temperature	92**	°C	ISO 75-2, Method B (0.45 MPa)
Brittleness temperature	-20**	°C	ISO 974
Ageing 10 days 120°C	≥ 125	%	PolyOne

* Data should not be used for specification work

** Measured on unexpanded material



PROCESSING TECHNIQUES

Optimum processability is achieved on extruders with $L \geq 24 D$. Typical processing conditions for

F 552 will vary, depending on product, extruder size and screw design.

For modern extruders with 4 barrel zones, we recommend:

Extruder temperatures (°C)	180 - 190 - 200 - 210
Adapter and die temperatures (°C)	200 - 200
Melt temperature (°C):	200 - 220
Max line speed (m/min):	1600
Conductor preheating (°C):	110 – 130

DELIVERY

Form:	Granules
Package:	25 kg bags - 1.375 Ton loads 1000 kg (nominal) octabins (No bottom outlet)

SAFETY

F 552 is not classified as a dangerous preparation.

The product is supplied in form of free-flowing granules of about 3 - 4 mm size and can be readily handled with commercially available equipment. All handling and transport of the product may generate some dust and fines that constitute a potential risk for dust explosion. All metal parts in the system should therefore be properly grounded. Properly designed equipment and good housekeeping will reduce the risk. Check and follow local codes and regulations!

Inhalation of any type of dust may irritate the air passages and should be avoided.

The product is intended for industrial use only. A Materials Safety Datasheet is available on request. Please contact your PolyOne representative for more details on various aspects of safety, recovery and disposal of the product.