



M21G764

Product Technical Information

LDPE for Film products

Applications

M21G764 are particularly suitable for mono and co-extrusion applications such as deep freeze, form fill seal film in general and thin bags. In blends and co-extrusions, they can be used to boost the impact strength of LLDPE, LDPE and recycled polyethylene.

M21G764 are ionomers, produced by neutralisation of an ethylene - methacrylic acid copolymer. M21G764 contains only antiblock. They offer the following properties:

- Very high impact strength at ambient and low temperatures
- Exceptional drawdown

M 21 G 764 can be added if a lower slip level is required or used pure for low slip films. Addition of other polymers, masterbatches and pigments, or use of other thicknesses may alter film slip and antiblock performance.

If corona treatment is necessary, the level should normally be in the range 38-48 mN/m.

We recommend that you consult your INEOS technical representative for further advice on the use of M21G764.

Properties	Test Method	Value	Units
Physical			
Melt flow rate Condition D	ISO 1133	0.95	g/10 min
Density (conditioning ISO 1872/1)	ISO 1183 Method D	926	kg/m ³
Methacrylic acid content	INEOS Method	1.0	%
Vicat softening temperature	ISO 306 Method A	97	°C
Antiblock (silica)	INEOS Method	1125	ppm
Other additives: antioxidants			

Film*

Dart drop impact	Method A	ASTM D1709	500	g
Tensile stress @ yield	MD/TD	ISO 1184	10/11	MPa
Tensile stress @ break	MD/TD	ISO 1184	22/21	MPa

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Elongation @ break	MD/TD	ISO 1184	350/500	%
1% Secant modulus	MD/TD	ISO 1184	165/175	MPA
Coefficient of friction		ASTM D1894	> 0.5	-
Haze		ASTM D1003	10	%
Gloss (45°)		ASTM D2457	50	%

- Data should not be used for specification work

* 50 µm film, 2,5:1 blow-up ratio, 180°C melt temperature. MD = machine direction TD = transverse direction

Extrusion conditions

M21G764 can be processed on all commercial blown film extruders over the temperature range 160 - 200°C. Film can be drawn down to approximately 15 µm under ideal extrusion conditions. When extruding M21G764, normal good housekeeping precautions should be taken to prevent equipment corrosion. We recommend use of an extruder fitted with a chrome or nickel plated die and stellite tipped screw flights. The resin should not stay in the extruder for extended periods. After extrusion of M21G764, the extruder should be purged with LDPE.

Storage

M21G764 should be stored in a dry and dust free environment at temperatures below 50°C. Exposure to direct sunlight should be avoided, as this may lead to product deterioration.

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Regulatory Information

The product and uses described herein may require global product registrations and notifications for chemical inventory listings, or for use in food contact or medical devices. For further information, send an email to psnohreg@innovene.com. Unless specifically indicated, the products mentioned herein are not suitable for applications in the medical or pharmaceutical sector.

Health and Safety Information

The product described herein may require precautions in handling. The available product health and safety information for this material is contained in the Material Safety Data Sheet (MSDS) that may be obtained from the website www.ineospolyolefins.com. Before using any material, a customer is advised to consult the MSDS for the product under consideration for use.

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