



GAIL (India) Ltd.
(A Govt. of India Undertaking)
Petrochemicals Marketing

MF18S010U

Metallocene Linear Low Density Polyethylene Resin

Product Description and Typical Applications:

MF18S010U is a metallocene ethylene–hexene copolymer. Films made of MF18S010U grade have outstanding tensile, impact strength, puncture resistance and very good sealing properties. These superior properties together with excellent draw down make this a versatile polymer especially for multilayer blown film applications in agriculture, overwrap film, heavy duty bags, barrier food packaging, and non-food packaging film etc.

MF18S010U is optimally stabilized with antioxidants, slip additive, antiblocking agent and processing aid. The material complies to US FDA 21 CFR 177.1520 (Olefin Polymers); EU No 10/2011; IS 9845 and REACH Regulation (EC) No 1907/2006. It is TNPP free material and conforms to natural resin designation IS 7328-2H-FBH-BXDA of IS 7328:2022.

Property	Values*	Unit	Test Method
Resin Properties			
Melt Flow Index (I ₂)	1.0	g/10min	ASTM D1238
Density @ 23°C	0.918	g/cc	ASTM D1505
Peak Melting Temp	119	°C	DSC Method
Film Properties			
Tensile Strength @ Break (MD/TD)	500/450	kg/cm ²	ASTM D882
Elongation @ Break (MD/TD)	550/650	%	ASTM D882
Tear Strength (MD/TD)	10/15	g/mic	ASTM D1922
Dart Impact Strength	17	g/mic	ASTM D1709
Haze	16	%	ASTM D1003
Gloss (45°)	50	-	ASTM D2457

* Film properties have been measured on a 40 µm thick film.

Processing Guidelines:

Barrel temperature: 185 - 210°C

Blow up ratio: 2.0 to 2.5

Die gap: 1.8 to 2.2

Regulatory Information:

Certificate is available on request.

Packaging & Storage:

MF18S010U is available in natural colour, pellet form in 25 kg woven sacks. The product should be stored in dry conditions at temperature below 50°C and protected from UV light.

For any technical assistance contact:

GAIL Polymer Technology Centre, GAIL (India) Limited

PARC Building, Plot No. 24, Sector-16A, Noida, (U.P.) India – 201301

Ph.: 0120-2515353/354/355/363 Fax No.: 0120-2511134, Website: www.gailonline.com

The information, data and suggestions contained herein are to the best of our knowledge accurate and reliable. It is the ultimate responsibility of the user to ensure that the product is suited and the information is applicable to the user specific application.