

HF7750M2 (EX2S)

High Density Polyethylene for Monofilaments

General Description

HF7750M2 (EX2S) is a high density polyethylene with 1-butene as comonomer. It has medium molar mass, low density with a narrow molar mass distribution, high rigidity and good tear strength.

Typical Applications

- Monofilament
- Ropes
- Yarns
- Geotextiles

Catalyst: THS/K1

Product Specification

PHYSICAL/MECHANICAL PROPERTIES	VALUE*	UNIT	TEST METHOD
Density	0.956±0.002	g/cm ³	ISO 1183
FRR 21.6/5	10±2		
MFR190°/2.16	33±3	g/10 min	ISO 1133
MFR190°/5	3.3±0.3	g/10 min	ISO 1133
Notched impact (23 °C)	e 25	MJ/mm ²	ISO179/1eA
Stress at yield	27	MPa	ISO 527
Flexural creep modulus (4 points, 1min)	1350	MPa	DIN 19537-2
Tensile modulus (23 °C, v = 1mm/ min, Secant)	1200	MPa	ISO 527
Stress at break	31	MPa	ISO 527
Elongation at break	>1000	%	ISO 527
Elongation at yield	10	%	ISO 527
Softening temperature	80	°C	ISO 306
Brittle temperature	< -80	°C	ASTM D746-72
Shore D hardness	-62	-	ISO 868
ESCR in full notch creep test (80 °C, 2% Arcopal)	2	h@3.5 MPa	ISO CD 16770
Impact strength (23 °C)	23	kJ/m ²	ISO 179/1eA

* Typical values; not to be considered as product specification.

Note:

Test specimens were taken from compression moulded sheet at 23°C.

FRR values are statistical and calculated by dividing MFR values.

Notch impact test specimen was taken from compressed moulded sheet at 23°C and the data quoted here are average values.

Processing conditions:

Recommended melt temperature is 220 - 270 °C.

EX2S should be processed using decomposition screw to prevent overheating of the melt. Die hold design: land length/diameter ratio= 2.5/1.

Typical temperature program; extruder: 220-260 °C, die head: 260-270 °C, hot water bath: 95 °C. Stretching ratio depends on monofilament properties (tensile strength and elongation at break).

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NOTICE: All tests were performed under laboratory conditions and standard testing methods. The data are intended as a general guide only and do not necessarily represent results that might be obtained elsewhere. The use of this product must be guided by the user's own methods for selection of proper formulation. RAYOMAND disclaims any responsibility for misuse or misapplication of this product. RAYOMAND makes no warranty of merchantability and there is no warranty that goods supplied shall be fit for any particular purpose. RAYOMAND liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited. The customer is responsible for determining whether products and information in this document are appropriate for the customer's use.