

Marlex® HMN TR-935G

Medium Density Polyethylene
Chevron Phillips Chemical Company LLC

Message:

These hexene copolymers are tailored for rotational molding applications that require:

- Wide process windows
- Excellent impact strength
- Good flow
- Excellent ESCR

Typical applications for HMN TR-935 and HMN TR-935G include items such as:

- Recreational and agricultural equipment
- Toys and carts

These resins are available in:

- Pellet form - HMN TR-935
- 35 US mesh powder - HMN TR-935G

These resins meet these specifications:

- ASTM D4976 - PE 223
- FDA 21 CFR 177.1520(c) 3.2a, use conditions B through H per 21 CFR 176.170(c) Table 2. Single use articles contacting food types I, II, IV-B, VI-A, VI-B, VII-B, and VIII. Repeated use articles contacting all food types defined in 21 CFR 176.170(c) Table 1.
- NSF / ANSI Standard 61 for potable water (CLD 23)
- NSF / ANSI Standard 51 for any food contact (MTU 100°C)
- UL94HB yellow card per UL file E349283
- UL746C (f1) yellow card per UL file E349283
- FMVSS.302 burn test
- AS/NZS 4020:2005 (contact with drinking water)
- Long term UV stabilization - ASTM 2565 (Cycle 1): Greater than UV-16

General Information	
Additive	UV stabilizer
Features	High ESCR (Stress Cracking Resistance)
	hexene comonomer
	Impact resistance, good
	Good UV resistance
	Good liquidity
Uses	Agricultural application
	Sporting goods
	Toys
Agency Ratings	AS/NZS 4020:2005
	ASTM D 2565
	ASTM D 4976-PE223
	FDA 21 CFR 177.1520(c) 3.2a 2
	NSF 51
	NSF 61
UL File Number	E54700

Forms	Powder		
Processing Method	rotomolding		
Physical	Nominal Value	Unit	Test Method
Density	0.939	g/cm ³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	6.0	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance			ASTM D1693A
10% Igepal, molded, F50	130	hr	ASTM D1693A
100% Igepal, molded, F50	> 1000	hr	ASTM D1693A
Outdoor Suitability	f1		UL 746C
Hardness	Nominal Value	Unit	Test Method
Durometer Hardness (Shore D, Compression Molded)	59		ASTM D2240
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ¹ (Yield, 3.17 mm, Rotational Molded)	17.0	MPa	ASTM D638
Tensile Elongation ² (Break, 3.17 mm, Rotational Molded)	750	%	ASTM D638
Flexural Modulus ³			ASTM D790
2% positive cut: mm, rotational molding	620	MPa	ASTM D790
Tangent: mm, rotational molding	760	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
ARM Impact			
-40°C, 3.20 mm	102	J	
-40°C, 6.35 mm	237	J	
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 3.17mm, rotational molding	58.0	°C	ASTM D648
1.8 MPa, unannealed, 3.17mm, rotational molding	41.0	°C	ASTM D648
Brittleness Temperature	-75.0	°C	ASTM D746A
Vicat Softening Temperature	110	°C	ASTM D1525 ⁴
Peak Melting Temperature	128	°C	ASTM D3418
Peak Crystallization Temperature (DSC)	112	°C	ASTM D3418
Flammability	Nominal Value		Test Method
Flame Rating	HB		UL 94
NOTE			
1.	Type 4, 51mm/min		
2.	Type 4, 51mm/min		
3.	13 mm/min		
4.	速率 A (50°C/h), 压力1 (10N)		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any

infringement occurs, please contact us immediately.

Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

