

# Linear Low Density Polyethylene Smooth Liner™



## Product Data

Property	Test Method	Values			
Thickness (min. ave.), mil, (mm)	ASTM D5199*	40 (1.0)	60 (1.5)	80 (2.0)	100 (2.5)
Thickness (lowest indiv.), mil, (mm)	ASTM D5199*	36 (.90)	54 (1.35)	72 (1.80)	90 (2.25)
*The thickness values may be changed due to project specifications (i.e., absolute minimum thickness)					
Density, g/cc, maximum	ASTM D792, Method B	0.939	0.939	0.939	0.939
Tensile Properties (ave. both directions)	ASTM D6693, Type IV				
Strength @ Break (min. ave.), lb/in width (N/mm)	2 in/minute	160 (28.0)	240 (42.0)	320 (56.0)	400 (70.0)
Elongation @ Break (min. ave.), % (GL=2.0in)	5 specimens in each direction	800	800	800	800
Tear Resistance (min. ave.), lbs. (N)	ASTM D1004	25 (111)	37 (165)	48 (214)	62 (276)
Puncture Resistance (min. ave.), lbs. (N)	ASTM D4833	60 (267)	90 (400)	120 (534)	150 (667)
Carbon Black Content (range in %)	ASTM D4218	2 - 3	2 - 3	2 - 3	2 - 3
Carbon Black Dispersion (Category)	ASTM D5596	Only near spherical agglomerates for 10 views: 9 views in Cat. 1 or 2, and 1 view in Cat. 3			
Oxidative Induction Time, minutes	ASTM D3895, 200°C, 1 atm O <sub>2</sub>	≥100	≥100	≥100	≥100
Melt Flow Index, g/10 minutes	ASTM D1238, 190°C, 2.16kg	≤1.0	≤1.0	≤1.0	≤1.0
Oven Aging	ASTM D5721	60	60	60	60
with HP OIT, (% retained after 90 days)	ASTM D5885, 150°C, 500psi O <sub>2</sub>				
UV Resistance	GRI GM11	20hr. Cycle @ 75°C/4 hr. dark condensation @ 60°C			
with HP OIT, (% retained after 1600 hours)	ASTM D5885, 150°C, 500psi O <sub>2</sub>	35	35	35	35
2% Secant Modulus (max.), lb/in. (N/mm)	ASTM D5323	2400 (420)	3600 (630)	4800 (840)	6000 (1050)
Axi-Symmetric Break Resistance Strain, % (min.)	ASTM D5617	30	30	30	30

These product specifications meet or exceed GRI's GM17

## Supply Information (Standard Roll Dimensions)

Thickness		Width		Length		Area (approx.)		Weight (average)	
mil	mm	ft	m	ft	m	ft <sup>2</sup>	m <sup>2</sup>	lbs	kg
40	1.0	22.5	6.86	649.6	198	14,621	1,358	3,113	1,412
60	1.5	22.5	6.86	419.9	128	9,452	878	3,006	1,363
80	2.0	22.5	6.86	321.5	98	7,237	672	3,067	1,391
100	2.5	22.5	6.86	249.4	76	5,612	521	2,995	1,313

### Notes:

*All rolls are supplied with two slings. All rolls are wound on a 6 inch core. Special roll lengths are available on request.*

All information, recommendations and suggestions appearing in this literature concerning the use of our products are based upon tests and data believed to be reliable; however, it is the users responsibility to determine the suitability for their own use of the products described herein. Since the actual use by others is beyond our control, no guarantee or warranty of any kind, expressed or implied, is made by Agru/America as to the effects of such use or the results to be obtained, nor does Agru/America assume any liability in connection herewith. Any statement made herein may not be absolutely complete since additional information may be necessary or desirable when particular or exceptional conditions or circumstances exist or because of applicable laws or government regulations. Nothing herein is to be construed as permission or as a recommendation to infringe any patent.