

# ICELENE LLF-4218

## Butene Copolymer LLDPE Film Resins

Grade	Additive packages	Applications
ICELENE LLF-4218D	Slip (1500 ppm), Antiblock (6300 ppm)	Trash bags, liners, general packaging
ICELENE LLF-4218F	Slip (0 ppm), Antiblock(0 ppm)	Industrial liners, heavy duty bags
		Stretch wrap, blend resin, industrial packaging

### PRODUCT DESCRIPTION

ICELENE LLF-4218 is a certified prime resin intended for use in general and industrial packaging. ICELENE LLF-4218 Series resin complies with the specifications contained in the U.S. Food and Drug Administration (FDA) regulation 21 CFR 177.1520 for olefin polymers, para. (c) 3.2a, and may thus be used in the United States as an article or component of an article intended for use in contact with food, without temperature or food-type restrictions, subject to technical suitability.

Properties*	Test Method	Metric Units		English	
		Typical Value	Unit	Typical Value	Unit
Melt Flow Index <sup>(2)</sup>	ASTM D1238	2.0	g/10 min.	2.0	g/10 min
Density (23°C)	ASTM D792	0.918	g/cm <sup>3</sup>	0.918	g/cm <sup>3</sup>
<b>Film Properties<sup>1</sup></b>					
Thickness		25	μm	1.0	mil
Tear Strength					
MD	ASTM D1992	110	g	110	g
TD	ASTM D1992	330	g	330	g
Low Friction Puncture		29	J/mm	7	in-lb/mil
Dart Drop Impact Strength F <sub>50</sub>	ASTM D1709/A	100	g	100	g
Tensile Strength					
MD	ASTM D882	32	Mpa	4600	psi
TD	ASTM D882	25	Mpa	1500	psi
Yield Strength					
MD	ASTM D882	10	MPa	1500	psi
TD	ASTM D882	10	MPa	1500	psi
Elongation					
MD	ASTM D882	660	%	660	%
TD	ASTM D882	700	%	700	%
1 % Secant Modulus					
MD	ASTM D882	170	MPa	24,700	psi
TD	ASTM D882	190	MPa	27,600	psi
Haze	ASTM D1003	14	%	14	%
Gloss @ 45°	ASTM 2457	43		43	

\* Typical Value of Properties which can vary with in specification limits and are not to be construed as specifications.

<sup>1</sup> Film properties are typical of blown film extruded on a 2.5" extruder with 4" die and 100-mil die gap at a blow up ratio of 2.5:1 but are dependent upon operating condition 190°C/2.16 kg.

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