

MATERIAL OVERVIEW

The WearSpray reservoir is engineered from flexible, recyclable low-density polyethylene (LDPE), a well-established material widely used in personal care and consumer packaging. It is selected for its resilience, controlled compression, and ability to recover its shape after repeated actuation, while safely holding liquids, lotions, and gels. The values below are typical properties for the grade used and are not to be construed as specification limits.

Material type	Low-Density Polyethylene (LDPE), additivated
Delivery form	Pellet
Key attributes	Good processability, good optical properties, low friction, good heat seal
Typical applications	Flexible & food-contact packaging film, hygiene film, shrink film
Processing methods	Blown film; cast film (extrusion 150–190 °C)

TYPICAL PROPERTIES

Property	Value	Test Method
Physical		
Melt Flow Rate (190 °C / 2.16 kg)	4.0 g/10 min	ISO 1133-1
Density	0.924 g/cm³	ISO 1183-1
Mechanical		
Tensile Modulus	260 MPa	ISO 527-1, -2
Tensile Stress at Yield	11 MPa	ISO 527-1, -2
Film		
Dart Drop Impact Strength, F50	100 g	ASTM D1709
Tensile Strength (MD / TD)	19 / 16 MPa	ISO 527-1, -3
Tensile Strain at Break (MD / TD)	300 / 600 %	ISO 527-1, -3
Coefficient of Friction	< 0.2	ISO 8295
Impact Failure Energy	3.5 J/mm	DIN 53373
Thermal		
Vicat Softening Temperature (A/50 N)	92 °C	ISO 306
Peak Melting Point	111 °C	ISO 3146
Optical		
Haze (50 µm)	< 9 %	ASTM D1003
Gloss (20° / 60°)	> 50 / > 100	ASTM D2457

Additives

Slip (Erucamide)	600 ppm	Supplier method
Antiblock (Natural Silica)	1800 ppm	ISO 3451-1

Test specimen: film properties measured on 50 µm blown film, melt temperature 170 °C, blow-up ratio 2.5:1.

NOTES & COMPLIANCE

- Values shown are typical properties and do not constitute specification limits or a warranty of fitness for a particular purpose.
- This grade is used in food-contact and hygiene film applications. It is not intended for medical or pharmaceutical use. For application-specific regulatory compliance, contact WearSpray.
- Recyclable content: manufactured from recyclable low-density polyethylene. Converters remain responsible for confirming suitability and safety for their intended end use.

For more information about this material — including the source and grade — please reach out to the WearSpray team at wearspray.com/contact.