



# Formolene® HPU4521

## High Density Polyethylene Non-Pressure Pipe Extrusion Resin

Formolene® HPU4521 is a hexene-based HDPE non-pressure pipe grade made using gas phase technology. It has good long-term hoop strength performance and outstanding toughness even at low temperatures.

Formolene® HPU4521 meets the requirements of the U.S. Food and Drug Administration as specified in 21 CFR 177.1520, covering safe use of polyolefin articles and components of articles intended for direct food contact. For additional information on approved conditions of use for food contact applications, please refer to the “Products” section on our website (<http://www.fpcusa.com/ourproducts.html>).

### Suggested Applications:

- Telecommunications Pipe
- Drip Irrigation Pipe

### Nominal Physical Properties:

PROPERTY*	ASTM TEST METHOD	English		SI	
		UNIT	VALUE	UNIT	VALUE
Density	D1505	g/cc	0.945	g/cc	0.945
Melt Index, 190°C/21.6 kg (HLMI)	D1238	g/10 min.	21	g/10 min.	21
Tensile Strength at Yield	D638	psi.	2800	MPa	19.3
Tensile Strength at Break	D638	psi.	4600	MPa	31.7
Tensile Elongation at Break	D638	%	>600	%	>600
Flexural Modulus at 1% Secant (0.5 in/min)	D790	psi.	130,000	MPa	896
Notched Izod Impact Strength at 23 °C	D256	ft·lb/inch	4.4	kJ/m	0.24
Shore D Hardness	D2240		62		62
Vicat Softening Temperature	D1525	°F	250	°C	121
Heat Deflection Temperature at 66 psi load	D648	°F	145	°C	63

\*Physical properties reported herein were determined on compression molded specimens prepared in accordance with Procedure C of ASTM D4703, Annex A1.

The nominal properties reported herein are typical of the product but do not reflect normal testing variance and therefore should not be used for specification purposes.

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