

POLYEARTHYLENE
TECHNICAL DATA SHEET



MATERIAL: PEL IH 172

DESCRIPTION: This material is a food contact and cosmetic grade PolyEarthylene for general use in injection molding. It has enhanced biodegradation and contains more than 50% bio-based content.

PROCESSING CHARACTERISTICS	METHOD	VALUE	UNITS
STOCK MELT TEMPERATURE	SOP	255-260	°F
MOLD TEMPERATURE	SOP	80-100	°F
DRYING TEMPERATURE	SOP	N/A	°F
DRYING TIME	SOP	N/A	hours
MAX. MOISTURE IN PROCESS	SOP	.03	%
DRYER DEW POINT	SOP	N/A	°F
GENERAL PHYSICAL PROP.		ASTM	
SPECIFIC GRAVITY	D792	1.146	gms/cc
WATER ABSORPTION	D570		
METHOD A (24 HRS.) %		0.023	%
MOLD SHRINKAGE LINEAR FLOW	D955		
1/8" SECTION LINEAR FLOW		2.93	%
1/8 ACROSS FLOW	D2240		in./in.
HARDNESS (SHORE D)	D2240	72.5	-
MECHANICAL PROPERTIES			
IZOD IMPACT STRENGTH @ 73 °F	D256		
NOTCH 1/8" SPECIMEN		0.393	Ft.lb/in
UNNOTCHED 1/8" SPECIMEN			Ft.lb/in
TENSILE STRENGTH (@ YIELD)	D 882	16,600	psi
TENSILE MODULUS	D 882	141,000	psi
TENSILE ELONGATION	D 882	10.9	%
FLEXURAL MODULUS	D790	17,300	psi
THERMAL PROPERTIES			
MELT FLOW RATE (@190 °C)	D1238	9.4	gms/10 min.
DEFLECTION TEMPERATURE (under load)	D648		
UNANNEALED @ 264 psi			°F
UNANNEALED @ 66 psi			°F
FLAMMABILITY VERTICAL BURN	UL94		@3.0 mm
ELECTRICAL PROPERTIES			
VOLUME RESISTIVITY	D257		Ohm.cm
DIELECTRIC STRENGTH	D149		v/mil

DATA ARE OBTAINED FROM SPECIMENS MOLDED UNDER CAREFULLY CONTROLLED CONDITIONS FROM REPRESENTATIVES' SAMPLES OF THE COMPOUND DESCRIBED HEREIN. PROPERTIES MAY BE MATERIALLY AFFECTED BY THE MOLDING TECHNIQUES APPLIED AND BY THE SIZE AND SHAPE OF THE ITEM MOLDED. NO ASSURANCE CAN BE IMPLIED THAT ALL MOLDED ARTICLES WILL HAVE THE SAME PROPERTIES AS THOSE LISTED. THIS DATA IS NOT BASED ON THE MINIMUM QUANTITY OF RESULTS REQUIRED TO REPORT AS QUALIFYING SPECIFICATIONS AND MAY BE SUBJECT TO REFINEMENT. DATA HEREIN IS TYPICAL AND NOT TO BE CONSTRUED AS SPECIFICATIONS

2021.10

1 Desiccant type dryer required. Always confirm that moisture levels are below the stated maximum before processing.

2 Value PEL testing