

Naturacell™ PROPERTIES



	Test Method	Naturacell™		Naturacell™	
Plasticizer		%	19 - 30	%	19 - 30
Melt Flow	ASTM D1238	g/10 min	.25 - 5.3	g/10 min	.25 - 5.3
<u>PHYSICAL PROPERTIES</u>					
Water Absorption @ 24 hrs (73°F) (22.8°C)	ASTM D570	%	7.7 - 11.7	%	7.7 - 11.7
Specific Gravity	ASTM D792	g/cm ³	1.29 - 1.31	g/cm ³	1.29 - 1.31
Mold Shrinkage	ASTM D955	%	0.07 - 0.3	%	0.07 - 0.3
<u>MECHANICAL PROPERTIES</u>					
Tensile Stress @ Yield	ASTM D638	psi	3,410 - 7,190	MPa	23.5 - 49.6
Tensile Stress @ Break	ASTM D638	psi	3,250 - 6,960	MPa	22.4 - 48.0
Elongation @ Break	ASTM D638	%	13 - 17	%	13 - 17
Flexural Modulus	ASTM D790	psi	150,000 - 300,000	MPa	1,034 - 2,068
Flexural Yield Strength	ASTM D790	psi	4,500 - 12,000	MPa	31.0 - 82.7
Rockwell Hardness	ASTM D785	R Scale	29 - 104	R Scale	29 - 104
Izod Notched Impact @ 73°F (22.8°C)	ASTM D256	ft-lbs/in	2.0 - 3.8	J/m	106.8 - 202.8
Izod Notched Impact @ -40°F (-40°C)	ASTM D256	ft-lbs/in	0.3 - 0.6	J/m	16.0 - 32.0
<u>THERMAL PROPERTIES</u>					
DTUL @ 66psi (0.455 MPa)	ASTM D648	°F	147 - 190	°C	63.9 - 87.8
DTUL @ 264psi (1.82 MPa)	ASTM D648	°F	129 - 180	°C	53.9 - 82.2
Vicat Softening Point	ASTM D1525	°F	189 - 217	°C	87.2 - 102.8
<u>MISCELLANEOUS PROPERTIES</u>					
Light Transmission (1/16" Thick) (1.59 mm Thick)	ASTM D 1003	%	90 - 91	%	90 - 91
Haze (1/16" Thick) (1.59 mm Thick)	ASTM D 1003	%	0.88 - 1.25	%	0.88 - 1.25
Weight Loss on Heating (72 hr@176°F) (72 hr@80°C)	ASTM D 707	%	0.87 - 3.95	%	0.87 - 3.95