



Mitsubishi Chemical Advanced Materials Sanalite® HDPE - High Density Polyethylene Cutting Board (FDA, USDA, & NSF) (ASTM Product Data Sheet)

Categories:	Polymer; Thermoplastic; Polyethylene (PE); High Density (HDPE)
Material Notes:	Quadrant Engineering Plastic Products is now Mitsubishi Chemical Advanced Materials.

Physical Properties	Metric	English	Comments
Specific Gravity	0.960 g/cc	0.960 g/cc	ASTM D792
Water Absorption	<= 0.010 %	<= 0.010 %	Immersion, 24hr; ASTM D570(2)
Water Absorption at Saturation	<= 0.010 %	<= 0.010 %	Immersion; ASTM D570(2)

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	70	70	ASTM D2240
Tensile Strength	31.7 MPa	4600 psi	ASTM D638
Tensile Strength at 65°C (150°F)	2.76 MPa	400 psi	ASTM D638
Elongation at Break	400 %	400 %	ASTM D638
Tensile Modulus	1.38 GPa	200 ksi	ASTM D638
Flexural Strength	31.7 MPa	4600 psi	ASTM D790
Flexural Modulus	1.20 GPa	174 ksi	ASTM D790
Compressive Strength	31.7 MPa	4600 psi	10% Def.; ASTM D695
Compressive Modulus	0.689 GPa	100 ksi	ASTM D695
Izod Impact, Notched	0.694 J/cm	1.30 ft-lb/in	ASTM D256 Type A
Coefficient of Friction, Dynamic	0.20	0.20	Dry vs. Steel; QTM55007

Electrical Properties	Metric	English	Comments
Surface Resistivity per Square	>= 1.00e+15 ohm	>= 1.00e+15 ohm	ASTM D257

Thermal Properties	Metric	English	Comments
CTE, linear	110 µm/m-°C @Temperature -40.0 - 149 °C	61.0 µin/in-°F @Temperature -40.0 - 300 °F	ASTM E831
Melting Point	127 °C	260 °F	Crystalline, Peak; ASTM D3418
Maximum Service Temperature, Air	82.2 °C	180 °F	Long Term
Deflection Temperature at 1.8 MPa (264 psi)	80.0 °C	176 °F	ASTM D648
Flammability, UL94	HB @Thickness 3.17 mm	HB @Thickness 0.125 in	Estimated Rating

Compliance Properties	Metric	English	Comments
3A-Dairy	No	No	
Canada AG	Yes	Yes	
FDA	Yes	Yes	
NSF	Yes	Yes	STD 2 & 51
USDA	Yes	Yes	
USP Class VI	No	No	

Chemical Resistance Properties	Metric	English	Comments
Acids, Strong (pH 1-3)	Acceptable	Acceptable	
Acids, Weak	Acceptable	Acceptable	
Alcohols	Acceptable	Acceptable	
Alkalies, Strong (pH 11-14)	Acceptable	Acceptable	
Alkalies, Weak	Acceptable	Acceptable	
Chlorinated Solvents	Unacceptable	Unacceptable	
Conductive / Static Dissipative	No	No	
Continuous Sunlight	Limited	Limited	
Hot Water / Steam	Limited	Limited	
Hydrocarbons - Aliphatic	Unacceptable	Unacceptable	
Hydrocarbons - Aromatic	Unacceptable	Unacceptable	
Inorganic Salt Solutions	Acceptable	Acceptable	
Ketones, Esters	Unacceptable	Unacceptable	

Descriptive Properties			
Color		Natural	
Machinability		3	1-10, 1=Easier to Machine

November 13, 2019

ENVIRONMENTAL AND HEALTH STATEMENT

Proteus® High Density Polyethylene Natural
Proteus® High Density Polyethylene Black
Proteus® LF High Density Polyethylene Natural
Proteus® High Density Polyethylene FDA Black
Sanalite® High Density Polyethylene Natural
Sanalite® High Density Polyethylene Black

California Prop 65 (List as updated June 2019)*High Density Polyethylene Natural Stock Shapes*

This product does not contain chemicals which are known to the State of California to cause cancer and birth defects or other reproductive harm.

However, since the presence of the above mentioned substances cannot reasonably be expected, Mitsubishi Chemical Advanced Materials does not check its absence in its stock shapes by testing.

*High Density Polyethylene Black Stock Shapes*

WARNING: This product can expose you to Carbon Black CAS 1333-86-4, airborne, unbound particles of respirable size are known to the State of California to cause cancer. For more information go to 65 www.P65warnings.ca.gov.

Ozone Depleting Substances Status

Materials listed in the Clean Air Act Amendments of 1990 (Class I, CFC's and Class II, HCFC's, Halons and the solvents, carbon tetrachloride and 1,1,1-trichloroethane) are not intentionally used in the production of this product. The clean Air Act supports the Montreal Protocol.

TSCA

See SDS sheet

EU directive 2011/65/EU RoHS(2) amendment EU 2015/863 RoHS (3)

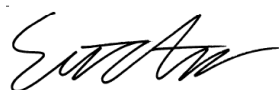
The chemical materials listed are not used in the manufacture or the formulation of this product.

The RoHS Directive complements the WEEE Directive.

Other substances not intentionally added during the manufacture of the stock shape:

Heavy Metals (which includes Mercury)	Bromated Flame Retardants
Phthalates	Asbestos
	BPA

Since the presence of the above mentioned substances cannot reasonably be expected, Mitsubishi Chemical Advanced Materials does not check its absence in its stock shapes by testing.



Eric Weir,
Technical Services Engineer