

Productivity

Polypropylene: A Mechanical Plastic Material with Excellent Corrosion Resistance

Issue: Wooden cutting boards absorb water and facilitate bacteria growth, leading to potential food contamination.

Application: Polypropylene cutting boards are used to replace wood for improved sanitation, and to replace other plastics when higher working temperatures, a harder cutting surface and added stain resistance are required.

Recommendation: Polypropylene has excellent corrosion resistance and is FDA approved for food grade contact. It will not absorb moisture, odor or bacteria.



SKU# 1YYD2

Product Features & Benefits:

Polypropylene is an extremely versatile material. It offers a high strength-to-weight ratio and excellent chemical resistance for use in highly corrosive environments. It is easy to fabricate and won't crack from vibration. Polypropylene offers good consistency of material. It can also be used in a variety of applications requiring chemical resistance and/or FDA compliance. Polypropylene is "natural" in color and stress relieved.

Polypropylene Benefits:

- High impact resistance strength
- Excellent chemical and corrosion resistance
- Resists most acids, alkalis and solvents
- Vacuum formable
- No moisture absorption
- FDA/USDA and 3-A Dairy Compliant (natural color)
- Ideal for applications up to 180 °F

Polypropylene Applications:

- Cutting boards
- Tanks - secondary containment
- Die cutting pads
- Fabricated parts/living hinge parts
- Plating and anodizing process equipment

Productivity

Polypropylene: A Mechanical Plastic Material with Excellent Corrosion Resistance

Chemical Resistance

		PVC	CPVC	PP	PE	ABS
	Conc. (%)	Room Temperature				
Acetic Acid	100	+	-	+	+	-
Acetone	100	-	-	+	+	-
Ammonia	conc.	+	x	+	+	+
Ammonium Chloride		+	+	+	+	+
Bleaching Solution	12.5 Cl	+	+	0	0	x
Boric Acid	100	+	+	+	+	x
Brake Fluid		+	x	+	+	-
Calcium Chloride		+	+	+	+	+
Chlorine, gas	100	0	x	-	0	-
Chloroform		-	-	0	0/-	-
Citric Acid	10	+	-	+	+	+
Diesel Fuel		+	x	+	+	+
Ethyl Alcohol	96	-	x	+	+	-
Food Oil		+	x	+	+	+
Formaldehyde, AQU	40	+	x	+	+	+
Frost Protection Agent		+	x	+	+	+
Fuel, Aromatic Free		+	x	+	+	+/0
Glycerin	100	+	+	+	+	+
Glycol	100	0	x	+	+	+
Hydrochloric Acid	10	+	+	+	+	+
Hydrochloric Acid	conc.	+	x	+	+	+
Hydrogen Peroxide	10	+	+	+	+	+
Isopropyl Alcohol	100	0	0	+	+	0
Methyl Alcohol	100	+	x	+	+	-
Mineral Oils, Aromatic Free		+	+	+	+	+
Nitric Acid	10	+	+	+	+	+
Nitric Acid	50	+	+	-	0	+/0
Ozone, Gas	<0.5 ppm	+	x	-	+/0	+
Petroleum, Aromatic Free	100	+	x	x	x	0
Phosphoric Acid	50	+	+	+	+	+
Premium Fuel		-	x	+	+	-
Propyl Alcohol		+	x	+	+	+
Silicone Oil		+	+	+	+	+
Sodium Chloride, AQU		+	+	+	+	+
Sodium Nitrate, AQU		+	+	+	+	+
Sulphuric Acid	96	+	+	0/-	0	-
Water		+	+	+	+	+

AVAILABLE SIZES:

Rod: 1/4" to 6" diameter,
1' to 6' lengths

Sheet: 1/16" to 3" thick,
12" to 48" widths,
12" to 96" lengths

COLOR:

Natural (Off White)

+ = resistant 0 = restricted resistant - = non-resistant
x = no data

Since almost any material is subject to aging, there is a limited life expectancy. The following factors have influence on chemical stability: temperature, duration, concentration, tension level of the part and mechanical strength. From the data of the list, the chemical stability and suitability of a material cannot be judged without the above mentioned restrictions. In special applications, it is up to the user to determine the suitability of the plastic by running trials in real time.

PVC=Polyvinyl Chloride (Type I)
CPVC=Chlorinated Polyvinyl Chloride
PP=Polypropylene
PE=High Density Polyethylene and Low Density Polyethylene
ABS=Acrylonitrile Butadiene Styrene