

## **CPC - Vycom PROTEC® Copolymer Polypropylene (CPP)**

Category: Polymer, Thermoplastic, Polypropylene (PP)

## **Material Notes:**

Protec CP is one of various types of "impact copolymers"—a rapidly growing segment of the thermoplastic sheet market. In contrast to homopolymer polypropylene (which involves the polymerization of a single monomer), impact copolymer synthesis consists of additional copolymerization of propylene and ethylene in a secondary reactor. By varying the secondary reactor conditions and the quantities of comonomer used, final properties can be tailored to meet a wide range of specific end-use application characteristics. Protec is formulated to provide high levels of impact resistance as well as corrosion resistance against a broad group of reagents, including organic solvents, degreasing agents and electrolytic solutions. Protec is a mid-density polypropylene, which retains its high tensile strength at elevated temperatures. FEATURES AND BENEFITS Impact Resistance- Protec CP has 10 times the impact strength of standard PP, even in cold temperatures. Corrosion Resistance- Protec CP has a broad chemical resistance over wide thermal range. Strength- Protec CP is lightweight, with an exceptionally high strength-to-weight ratio. Formability- Protec CP is well suited for thermoforming and deep drawing. Machinable- Protec CP is formulated to machine easier with less chipping and fraying. Weldable- Protec CP can be fabricated and welded with conventional plastic welding equipment. Stability- Protec CP is ideally suited to withstand cracking due to environmental stress. FDA-Protec CP is compliant with FDA regulations for food grade contact. NSF- The National Sanitation Foundation has approved natural Protec CP for food grade contact in food equipment. Information provided by Compression Polymers Corp - Vycom

Order this product through the following link:

http://www.lookpolymers.com/polymer\_CPC-Vycom-PROTEC-Copolymer-Polypropylene-CPP.php

Physical Properties	Metric	English	Comments
Density	0.901 g/cc	0.0326 lb/in <sup>3</sup>	ASTM D792

Mechanical Properties	Metric English		Comments	
Hardness, Rockwell R	92	92	ASTM D785	
Tensile Strength, Yield	26.2 MPa 3800 psi		ASTM D638	
Elongation at Yield	13 %		ASTM D638	
Flexural Modulus	1.48 GPa	215 ksi	ASTM D790A	
Izod Impact, Notched	0.908 J/cm	1.70 ft-lb/in	0°F; ASTM D256	
	6.67 J/cm	12.5 ft-lb/in	73°F; ASTM D256	
Dart Drop, Total Energy	47.0 J	34.7 ft-lb	Internal Testing	
	@Temperature -30.0 °C	@Temperature -22.0 °F		

Thermal Properties	Metric	English	Comments
Melting Point	164 °C	327 °F	DSC
Deflection Temperature at 0.46 MPa			



Thermal Properties Metric English Comments

## **Contact Songhan Plastic Technology Co.,Ltd.**

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