



# POLIFIL® C DATA SHEET

DOING THE NEEDFUL SINCE 1973

## Calcium Carbonate Reinforced Polypropylene

**Polifil® C** series compounds are homopolymer polypropylene resins reinforced with fine particle size calcium carbonate. They combine high impact with stiffness, good colorability, resistance to environmental stress-cracking, good surface, and low mold shrinkage. Polifil® C products in the 20 to 40% range are UL94 HB rated. These compounds are used in appliances, electrical components, housewares, toys, automotive, and utility products. Standard processing techniques are applicable. Use this information as a guide to aid you in selecting the proper resin for your application. TPG will custom compound and fine-tune our formulations for your application.

PHYSICAL	ASTM/ Method	Polifil® C-10	Polifil® C-20	Polifil® C-30	Polifil® C-40
Reinforcement content (%)	TPG WI	10	20	30	40
Specific gravity	D 792	0.98	1.05	1.15	1.24
Melt flow 230/2.16 (g/10 min)	D 1238	8-12*	8-12*	8-12*	8-12*
Water absorption, 24 hours (%)	D 570	nil	nil	nil	nil
Mold shrinkage – 1/8" specimen (in/in)	D 955	0.015	0.013	0.012	0.010

### MECHANICAL @ 73°F

Tensile strength (psi)	D 638	4,400	4,100	3,600	3,400
Elongation @ yield (%)	D 638	8.0	7.0	6.0	5.0
Elongation @ break (%)	D 638	30	40	50	60
Tensile modulus (kpsi)	D 638	210	240	270	300
Flexural modulus, tangent (kpsi)	D 790	230	270	300	320
Flexural strength (psi)	D 790	5,100	5,500	5,800	6,000
Izod impact, notched (ft-lbs/in)	D 256	0.55	0.57	0.60	0.70
Gardner impact, 1/2" tup (in-lbs)	D 5420	24	40	60	60
Hardness, shore (D-scale)	D 1415	72	74	75	76

### THERMAL

Deflection temperature, 66psi (°F)	D 648	200	210	220	235
Deflection temperature, 264psi (°F)	D 648	130	135	140	145
Flammability** (Rating)	UL94	–	HB	HB	HB

\*melt flow may be specified

\*\* TPG UL File# E84888. This rating is not intended to reflect hazards of this or any other material under actual fire conditions.

The property values listed above have been obtained using laboratory controlled test methods. They are offered without guarantee since conditions under which the product is used are beyond our control. Mold shrinkage is intended as a guide only, as specific shrinkage is affected by part design, mold design and molding conditions. Therefore, The Plastics Group disclaims any liability for loss or damage incurred in connection with the use of this product.

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