



CARBITAL™ 110 & CARBITAL™ 120 IN POLYPROPYLENE

Carbital™ 110 and Carbital™ 120 are high whiteness calcium carbonate fillers derived from pure Italian Marble. They are milled and classified to below 10 and 30 micrometres respectively.

Advantages in polypropylene are:

- Exceptional colour
- Good toughness and rigidity
- Excellent dispersion
- High gloss

Calcium carbonate fillers are used in polypropylene to increase the rigidity. Traditionally, fine ground chalks were used, but in aesthetic applications these are increasingly being replaced by the whiter limestone and marble based products.

Carbital™ 110 and Carbital™ 120, as fine ground Italian marble fillers, will ensure the optimum optical properties of polypropylene compound are achieved while retaining a good balance of toughness and stiffness.

The whiteness and yellowness obtained with these products is far superior to that obtained with a chalk based filler and significantly better compared with many other calcium carbonate fillers. Examples of this are given in Table 1 where the optical properties of a 30% filled PP copolymer containing Carbital™ 110, Carbital™ 120 and competitive products are shown.

The low number of coarse particles in Carbital™ 110, (98.5% below 10 micrometres), ensures that optimum toughness is achieved while the 30 microns top cut of Carbital™ 120 results in an adequate balance of toughness and stiffness. The benefits of controlling particle size are shown clearly in Figure 1.

FIGURE 1: EFFECT OF CALCIUM CARBONATE TYPE ON MECHANICAL PROPERTIES

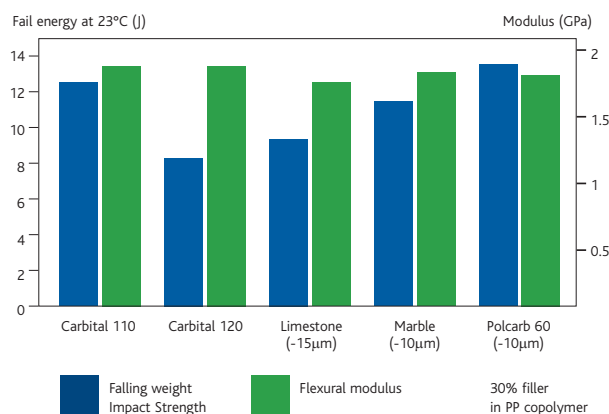


TABLE 1: CARBITAL 110 AND 120 IN POLYPROPYLENE COLOUR AND GLOSS

Filler	L*	a*	b*	Gloss (%) (at 60 deg.)
Carbital™ 110	87.8	0.03	3.4	46
Carbital™ 120	87.8	-0.20	3.3	43
Limestone (top cut 15µm)	84.8	0.46	9.5	43
Marble (top cut 10µm)	87.5	0.52	8.8	46
Polcarb™ 60 (top cut 10µm)	76.3	0.44	11.6	48

