



MERAFLEX – SHORT CUT

Wet-laid

The use of Meraklon short-cut fibres in the wetlaid process represents the ideal solution to provide specific properties of nonwoven, together with its good uniformity and constancy of characteristics. The surface finishing of our short-cut fibres has been studied to maximize the dispersion in water during the working process. The low density of polypropylene enables the production of lighter products with the same covering effect of other heaviest kinds of fibres. In particular for the hygiene market, the chemical inertia and the low moisture absorption are the other main advantages in the use of Meraklon short-cut fibres in wetlaid process. Moreover, the crimp characteristics of our short-cut fibres allow the production of very soft and bulky products.

Concrete

The introduction of Meraklon short-cut fibres into concrete, at adequate concentrations, can completely eliminates the risk of shrinkage cracking in floors that are not correctly damp-cured and avoiding the spalling phenomena. Inside the concrete matrix , Meraflex Short cut fibre reduce the spalling phenomena during burning. Inside the concrete matrix, Meraflex Short cut fibre reduce indeed the spalling phenomena during the burning due. The melting temperature of 160 °C of the fibre allow indeed to the generated steam to download its own pressures by through the porosity they release after their melting. This represents an element of passive protection to fire.

Mortars

Several studies have shown that the use of Meraklon short-cut fibres, of 6 or 12 mm length, at adequate concentrations in the mortar:

- eliminates the formation of cracks due to plastic shrinkage on the unshuttered surfaces of cement mortar that are not correctly cured by damping;
- makes cement mortars of relatively low porosity (W/c 0.55) resistant to attack from carbon dioxide, even when the mortar is not cured by damping. A low W/c ratio, in fact, is not sufficient to prevent reinforcement corrosion caused by plastic shrinkage cracks resulting from the inadequate or inexistent curing of the unshuttered mortar surfaces;
- makes air-entrained cement mortars resistant to freeze-thaw cycles even when the mortar is not cured by damping.

PROPERTIES

POLYMER	100% polypropylene
SPECIFIC GRAVITY	0,91 g/cm ³
LENGTH	4-6-12-18-24 mm
FIBER DIAMETER	17,5 (± 3%) μ (equivalent to 2.2 dtex) 19,8 (± 3%) μ (equivalent to 2.8 dtex)
TENSILE STRENGTH	350÷450 MPa
ELASTIC MODULUS	5÷7 Gpa
FINISH	Hydrophilic and high cohesive
FIRE	The material is not "flammable" as defined in Art.2 of the EEC Dir. N°.67/458, but is combustible; it burns slowly
DURABILITY	Excellent resistance to chemical and atmospheric agents, alkali resistant
APPLICATION	Short cut fibre for wet laid applications, concrete, mortar and cement reinforcement.