MARKET VISION

Enlarged, flexible choice of emulsion bonded CSM for hand lay-up and closed mold applications

Owens Corning has broadened its range of emulsion bonded chopped strand mat (CSM) products with the addition of M6X1 for large and thick parts. Together with M705 CSM, they deliver key performance properties for a wide range of different processes and application requirements.

As the global market for CSM diversifies, customers are seeking product solutions that will adapt more easily and profitably to the specific needs of hand lay-up and closed mold applications in markets ranging from automotive and boats, to chemical tanks and pools. Medium fiber, multi-chop length M6X1 and M705 CSM from Owens Corning are compatible with unsaturated polyester resins and combine excellent conformability to complex contoured molds with a number of distinct property benefits.

Ease of handling, economic resin pick-up, high productivity

Based on longer, multi-chopped fibers for maximum tensile strength, M6X1 product displays a superior dry tensile strength double that of competitive products. Excellent handling properties in dry and wet conditions, makes M6X1 CSM an ideal choice for larger and wet carrying applications, and thick parts will benefit from its fast wet-through, impregnation and low resin pick-up.

At slower impregnation, but quick wetting and rapid air release, M705 product can provide thinner laminate with higher glass content and can be tailored more readily to complex molds for thinner parts. With randomly oriented chopped glass strands, it is well suited for applications requiring higher glass content in balance with good mechanical properties.

Both M6X1 and M705 are porous CSM which maintain their integrity during impregnation at uniform wet-through rates. The emulsion binder provides outstanding handling properties compared to powder bonded mats.

“The chemistry and chop length of M6X1 and M705 mats result in versatile CSM products with excellent conformability to contoured molds”

says Benoît Boucher, Customer Technical Support Engineer at Owens Corning.

Enhanced corrosion resistance

All CSM products from Owens Corning are manufactured using Advantex® Glass, a boron-free E-glass and E-ČR glass reinforcement in accordance with ASTM D578, ISO 2078 delivering a high performance required in applications facing corrosion in the harshest environments.

Contact:
composites@owenscorning.com

1 Owens Corning internal benchmark tests, Besana, Italy, 2014