



# TAP PREMIUM PIGMENTS



## PRODUCT DESCRIPTION

**Introduction:** TAP Premium Pigments are dispersions of dry lead-free, inorganic/organic pigments in an unsaturated/non-styrenated polyester resin. They are used for coloring Fiberglass Reinforced Plastics (FRP). The pigment dispersions are free from plasticizers, with respect to polyester resin systems. The carrier resin in the

pigment paste combines chemically with molding grades of commercial Polyester resins during curing. However, when used for coloring Epoxy resin systems, TAP Premium Pigments function as plasticizers, and are completely compatible with respect to curing and performance.

**Pigment Properties:** TAP Premium Pigments have been engineered to provide excellent dispersion in commercial grade resins, color uniformity, and freedom from streaking on molded surfaces. The pigments exhibit the following properties.

**Light Fastness:** Pigments exhibit excellent light fastness and will resist fading or discolor on exposure to sunlight. Pastel shades, however, are not recommended for outdoor applications.

**UV Resistance:** Ultraviolet (UV) radiation, from sunlight, accelerates the chemical and physical degradation of FRP moldings exposed to outdoor conditions. The degradation occurs mostly on the surface of the molding. But once degraded, the surface tends to chalk and erode due to weathering, exposing fresh surface to further attack. Protection of outdoor structures fabricated in FRP is, therefore, important. Pigments absorb and convert UV radiation into heat, which is dissipated to the surrounding medium readily. Therefore, pigments prolong the outdoor service life of moldings. Protection by this mechanism depends on the pigment concentration on the surface. Gel coats having higher pigment loading will, therefore, afford longer protection.

**Outdoor Durability:** The durability of the pigments depend on environmental conditions such as heat, light, moisture, and industrial pollutants present in the atmosphere. Generally the darker shades will have better durability when exposed to outdoor conditions.

**Pigment Usage Level:** The following is a recommended usage level of TAP Premium Pigments with commercial grades of molding resins. The percentage levels listed here is based on the weight of the molding resin.

8	- 12%	Gelcoats
4	- 6%	Laminates
8	- 10%	Sheet/dough molding compounds
1	- 5%	Translucent pigment usage
4	- 6%	Filled castings
8	- 10%	Pultrusions

Not using enough pigments may lead to non-uniformity of color and other surface defects. Higher pigmentation levels will provide better color uniformity, color depth, brightness and longer durability.

**Mixing Instructions:** TAP Premium Pigments mix readily with polyester resins. Small quantities of pigments can be mixed easily by hand stirring. However, for large quantities of pigment, power mixing is necessary. The following guideline is helpful for mixing TAP Premium Pigments with resins: Add a weighed quantity of the pigment into a mixing container, followed by

a small amount of the resin. The contents are mixed well until the color is uniform. This is followed by adding the remainder of the resin, with further mixing, until the system is homogeneous in color. A small quantity of the pigment should not be added to a large bulk of the resin, without first thinning, as described above.

**Catalyst Addition:** The catalyst for curing the pigmented resin should be added as per the instructions of the original manufacturer of the resin. As a general working rule the catalyst should be added to the pigmented resin just before actual usage.

**Storage Stability:** TAP Premium Pigments have excellent stability in storage and the minimum guaranteed shelf-life is 6 months. .

**Color Matching:** TAP Premium Pigments can be mixed with one another to obtain intermediate shades. Dark shades present no particular color matching problems, but light shades may pose some difficulty.

**Warranty:** TAP Premium Pigments are manufactured under stringent technical and quality specifications. Although the information here is reliable, no guarantee is implied in the recommendations or suggestions contained herein, since the conditions of usage are beyond our control. No responsibility is accepted by us for any damage, injury or loss resulting from the use of materials or information published in this document. We will not be liable for damages exceeding the value of the pigment product.

## APPLICATIONS

TAP Premium Pigments have been used to color a multitude of FRP and composite products.



- Fiberglass boats and yachts.
- Masts and decks.
- Marine equipment.



- Ski equipment and accessories.
- Snow equipment and vehicle body.



- Surfboards - Our premium pigments are very popular to make surf boards.
- Sporting goods such as hockey sticks, fishing rods, goal posts.

- Fiberglass furniture, canopies, windows, bath tubs, Jacuzzis, structural and construction items.
- Chemical storage tanks and equipment, mixers, ducts, hoods, and blower casings.
- Custom car body, parts and repair work.
- Laminating rigid foam items.
- Manufacture of pigmented gel coats.
- Sculptures, 3D models, and artistic items.
- Prosthetics and other medical devices.



*Note: For epoxies, use 25% less pigment.*

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