



Polytint

High Molecular coloring agent



Polytint is a high-transparency, high-chroma, and low-color-migration high molecular coloring agent. This innovative liquid coloring agent features low viscosity and high color concentration, with properties distinct from traditional dyes and pigments. It can be widely used in both solvent-based and water-based coating system.

Features of Polytint:

- **Low Migration:** Significantly reduces the potential for color migration from the coating film to other surfaces. Exhibits excellent solvent resistance.
- **Bright and Vivid Colors:** Provides a wide range of color possibilities with 5 primary colors plus black.
- **High Transparency:** Offers extremely high transparency, compatible with metallic and pearlescent pigments without diminishing the gloss of effect pigments. Delivers an exceptional crystal-clear and three-dimensional effect.
- **Environmental Friendly:** This coloring agent is environmentally friendly, non-toxic, and free of heavy metals. It complies with European standard EU2002-61-EC.
- **High Thermal Stability:** Heat-resistant up to over 250 °C.

| Properties | PolyTint Colorants | | | | | |
|--|--|--------------|----------------|----------------|----------------|---------------|
| | Red 3146 | Blue 3145 | Yellow 1016 | Violet 3144 | Orange 3143 | Black 3147 |
| Color | Due to its extremely high transparency, the color varies with the amount added | | | | | |
| Viscosity (cps @ 25 °C) | 1800 | 2500 | 2000 | 2000 | 3000 | 2000 |
| Hydroxyl Value | 180 | 168 | 84 | 80 | 105 | 168 |
| HLB Value (Hydrophilic-Lipophilic Balance) | 12.1 | 25.2 | 11.3 | 12.6 | 12.3 | - |
| Color Strength | 25 | 25 | 28 | 24 | 18 | 12.5 |
| Packaging Specifications | 45-pound small drum or 475-pound large drum | | | | | |

Application:

PolyTint® can be mixed with resins or directly pumped into the reaction system. Adding 1%-3% of the coloring agent to the resin will achieve bright colors. For deeper shades, adding 3%-5% (based on the weight of the resin) is recommended. This product is suitable for use in polyurethane resins, acrylic resins, epoxy resins, and amino resin systems.

Note: When substituting PolyTint polymeric colorants for traditional pigments, especially for darker colors, the process is not simply a direct replacement. The formulation must be reverted to its original state before the addition of colorants. Due to the complexity of coatings, detailed testing is required during large-scale production.

Warning: Extended mixing with certain amine catalysts may lead to color loss. Applications involving PolyTint Black 3147 with amine catalysts or other reactive chemicals must be tested. Certain catalysts, such as BDMA, A-5, A-6, and A-10, may cause some degree of color fading.