



Ciba® TINUVIN® XT 833

High Performance Light Stabilizer System

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| Characterization | TINUVIN® XT 833 is a novel high performance light stabilizer system that imparts outstanding weatherability to PVC and to PVC alloys. The primary advantage of TINUVIN XT 833 over the more traditional ultraviolet absorbers typically added to exterior PVC is the superior color and physical property retention that it provides. | |
| Applications | TINUVIN XT 833 is a highly effective light stabilizer for PVC and alloys of PVC. Its use is especially recommended for applications like PVC roofing membranes, PVC pond, pool, and irrigation liners, PVC coated fabrics such as those used in tents, tarps, and awnings, flexible PVC outdoor furniture, PVC flooring, PVC automotive trim, and in other flexible PVC outdoor applications. It can also be used in rigid PVC applications, especially those that do not contain tin mercaptide thermal stabilizers. Some of these applications include dark colored PVC siding and pigmented window and door profiles. Additionally, it can be used in PVC alloys like PVC/ABS and PVC/PUR in parts exposed to sunlight. | |
| Features/benefits | TINUVIN XT 833 is a powerful ultraviolet light stabilizer that maintains its activity in highly acidic environments. It protects PVC from the harmful effects of light exposure and helps it maintain its initial appearance, its initial tensile, elongation, and impact properties and its physical integrity during long-term weathering. In PVC roofing membranes, for example, it minimizes discoloration and embrittlement and enables the membranes to retain their moisture barrier properties and their reflectivity for many years. A similar appearance and physical property protection is provided by TINUVIN XT 833 in other outdoor PVC applications. | |
| Product forms | <i>Code:</i> | TINUVIN XT 833 FF |
| | <i>Appearance:</i> | White to off-white granules |
| Guidelines for use | TINUVIN XT 833 is intended for use in PVC applications demanding the highest performance and the longest durability. For harsh conditions such as in roofing, siding, and decking, the recommended concentration is 1% or higher. For less severe end uses, 0.2 to 1.0% may be used. Please note that the use levels depend on the performance requirements of the final application. The level selected should be based on the desired stability and the economics of the given circumstance. Because of their negative influence on uv stability, we do not recommend that TINUVIN XT 833 be used together with tin mercaptide thermal stabilizers. The preferred thermal stabilizers are barium/zincs, calcium/zincs and tin carboxylates. TINUVIN XT 833 can be used alone or in a variety of blends and combinations with Ciba® IRGAFOS®, IRGANOX®, TINUVIN, CHIMASSORB®, IRGASTAB® and other functional stabilizers and additives where often a synergistic performance is observed. | |
| Physical Properties | <i>Melting Range</i> | 63-75 °C |
| | <i>Bulk Density</i> | 488g/L |
| | Solubility (20 °C) | % w/w |
| | <i>Chloroform</i> | 39 |
| | <i>Ethanol</i> | 2 |
| | <i>n-hexanes</i> | 20 |
| | <i>Methyl Ethyl Ketone</i> | 30 |
| | <i>Methylene Chloride</i> | 52 |
| | <i>Toluene</i> | 43 |
| | <i>Bis (2 ethylhexyl) adapate</i> | <5 |
| | <i>Tritolyl Phosphate</i> | <2 |
| | <i>DOP (dioctyl phalate)</i> | <1 |
| | <i>ESBO (Epoxidized soybean oil)</i> | <1 |

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| Handling & Safety | In accordance with good industrial practice, handle with care and avoid unnecessary personal contact. Avoid continuous or repetitive breathing of dust. Use only with adequate ventilation. Avoid dust formation and ignition sources. For more detailed information please refer to material safety data sheet. |
| Registration | The registration status for TINUVIN XT 833 is derived from the single components, the components are listed on Australia: AICS Canada: DSL China: IECSC Europe: EINECS / ELINCS Japan: ENCS Korea: ECL USA: TSCA |

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