Your Plus for Plastics

Tinuvin® 1600 the novel UV absorber for extremely demanding transparent outdoor plastic sheets, films and other thin-section applications.

Plastic additives for
high-performance thermoplastics

BASF
The Chemical Company

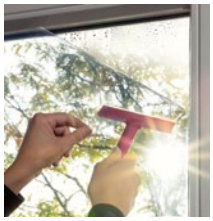
Tinuvin® 1600 – A Breakthrough Technology

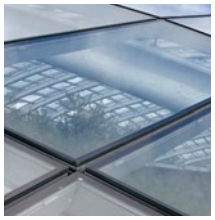
Tinuvin® 1600 represents a major milestone in UV absorber technology.

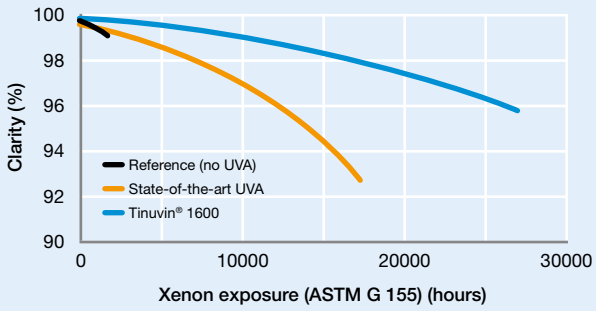
- Provides extremely long-lasting UV protection for high-performance thermoplastics
- Exhibits outstanding UV absorption capacity, resulting in minimal loss of optical properties for stringent weathering requirements
- Very low volatility allowing for outstanding processing characteristics
- Sets new industry benchmark in ultra high durability, not achievable with current UV technologies

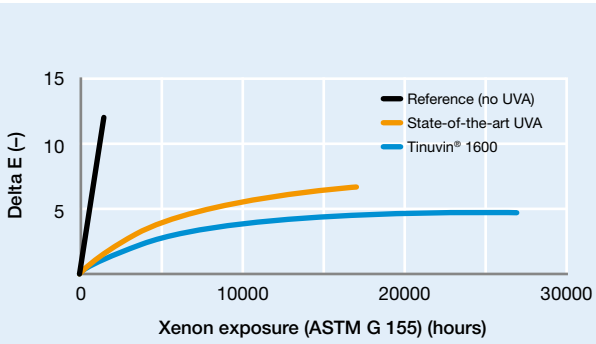
Tinuvin® 1600 has been specifically developed for the long-lasting protection of thin-layer applications for exterior uses, allowing plastic sheets, films and fibers to retain their mechanical properties, color and transparency for extended periods of time. Tinuvin® 1600 belongs to the HPT [Hydroxyphenyltriazine] chemistry class, exhibiting very low volatility, excellent thermal stability and good substrate compatibility in a variety of polymeric resins, allowing very easy processing. It imparts far superior durability that traditional UV absorbers of the benzophenone, benzotriazole or cyanoacrylate classes cannot achieve. Tinuvin® 1600 is the solution for the most demanding thin-section applications in terms of exposure to UV light, at the same time improving productivity.

50 µm polycarbonate films, representative of a polycarbonate caplayer, was tested according to ASTM G 155 (Xenon weathering) until embrittlement. Tinuvin® 1600 provides outstanding performance compared to the best-in-class at significantly lower concentration levels. For example, optical properties such as clarity and color (represented by delta E) are well maintained.
In addition, the significantly increased lifetime of the film, under UV exposure makes Tinuvin® 1600 the ideal solution for all applications where superior performance combined with longevity is sought.









Recommended Applications

Tinuvin® 1600 helps to extend the life expectancy of outdoor products under strong exposure to UV light, including:

- Monolithic and multi-wall PC sheets for ultra high durability architectural and automotive glazing applications
- Oriented PET films for photovoltaics, window films, displays, protective films and other long-term applications
- PMMA films/laminations for very durable specialty applications like window profiles, photovoltaics and demanding construction applications
- PET and PA fibers
- SAN, ASA high-performance plastics applications, e.g. in building and construction and automotive applications
- Other extruded or blown thin-film applications requiring extended UV protection

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