Cesa™ Light Additives for Injection Molded Applications

Sunlight in combination with heat and oxygen can induce degradation in plastics, causing detrimental effects on mechanical, optical, and other physical properties. This can result in breakage, chalking and discoloration of the final product.

Cesa™ Light Additives for injection molded applications contain high additive loading to provide efficient protection against photochemical degradation. They are suitable for a large range of thermoplastics subjected to long-time exposure to sunlight. The additive concentrates can be customized to include colors and/or other additives, e.g., flame retardants, antistatic or laser marking additives. Compliance with specific regulatory requirements such as EU/US food contact, toy or UL 94 flammability classes is also available on request.

BENEFITS

• High additive loading for optimal UV stabilization
• Solutions available for a large number of injection molded polymers including PP, PE, PS, HIPS, ABS, SAN, PA (nylon), PBT, Co-PET, PC, POM and TPU
• Can be combined with colors and other additives in Smartbatch™ solutions
• Formulations can be customized to meet specific regulatory compliance, e.g., EU and US food contact, toy, UL 94 recognition
PERFORMANCE

The following chart shows the efficiency of Cesa Light Additives in minimizing color variations induced by long sunlight exposure. The white ABS plastic samples, produced with and without Cesa Light Additives, were exposed to simulated sunlight conditions using the weathering test ISO 4892-2:2013. Samples containing Cesa Light Additives (CC01, CC02, CC03) showed limited Delta b (Db) variations, while the non-UV stabilized sample showed a high Db variation and visual yellowing.

*Source: Avient internal testing*