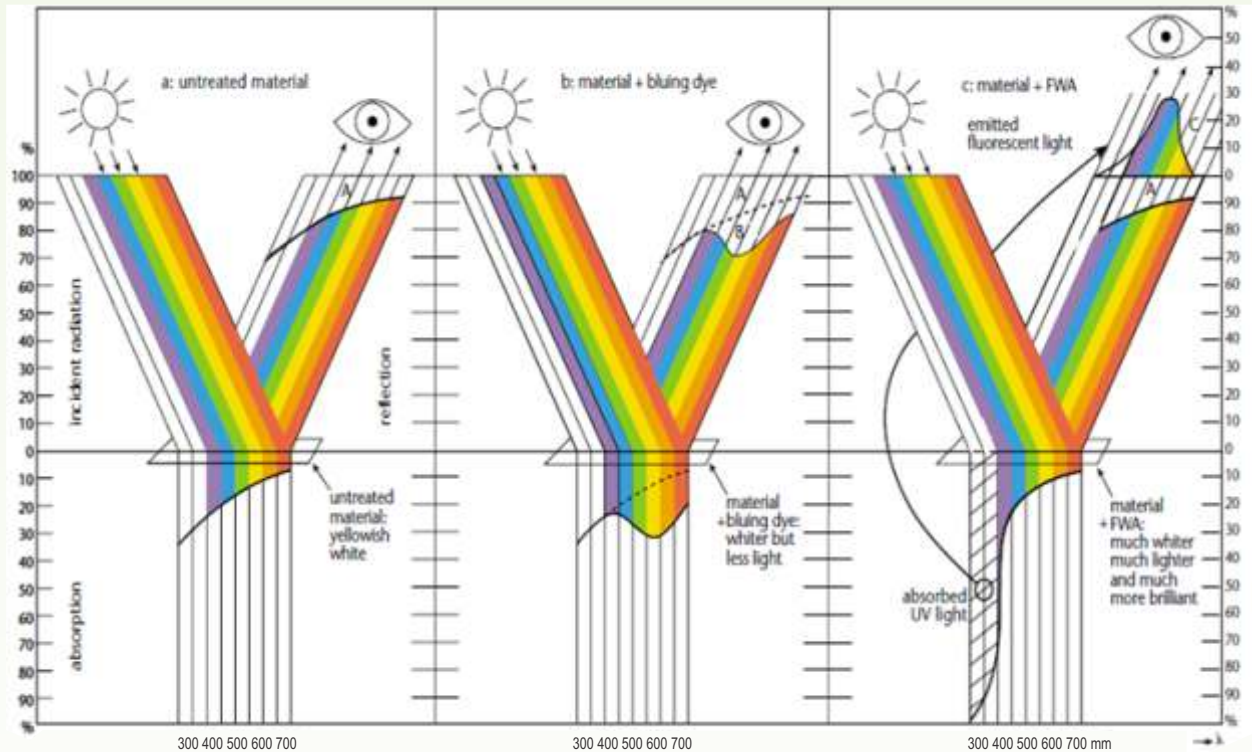


OPTICAL BRIGHTENER MASTERBATCH

SPL Optical Brightener MBs are based on fluorescent whitening agents which absorb ultraviolet (UV) light in the 300 to 400 nm range and re-emit most of the absorbed energy as blue fluorescent light between 400 and 500 nm. The emitted blue light will reduce the yellowness of the polymer and provide the **whiter than white** appearance.

The principle of Optical Whitening is explained in the figure below -



absorption and reflection of daylight on white surfaces

- a: untreated material absorbs mainly blue light (A) → yellow cast
- b: blued material : yellow cast (a) compensated by additional absorption of green-yellow light (B) → loss of lightness
- c: material treated FWA : reflectance + fluorescence → yellow cast compensated + excess of blue light (C)

Based on the hue of the fluorescence produced under incident light, SPL offers two distinct types of OB masterbatches - Neutral White & Ultra White in Styrenic & Polyolefinic carrier.

Features and Benefits

- ❖ Whiter than White Appearance
- ❖ Good compatibility with Polymer substrate
- ❖ No interaction with other Pigments & Additives
- ❖ Easily dispersible
- ❖ Good light fastness
- ❖ Excellent resistance to heat
- ❖ High chemical stability
- ❖ Low volatility

Grade	% Active Content	Dosage level, %	Compatible Polymers	Applications
SP7337 0001 (Neutral White)	1	0.5 – 2.5	GPPS, HIPS	Injection molding, Extrusion and Thermoforming *Recommended in GPPS for edge glow
SP7338 0001 (Ultra White)	1	0.5 – 2.5	HIPS	Injection molding, Extrusion and Thermoforming
SP7338 0002 (Ultra White)	2	0.5 – 1.5	HIPS	Injection molding, Extrusion and Thermoforming
SP7137 0001 (Neutral White)	1	0.5 – 2.5	LLDPE, LDPE, HDPE, PPHP, PPCP, EVA	molding (Injection, Blow & Roto), Films, Tapes, Pipes, Profiles
SP7138 0001 (Ultra White)	1	0.5 – 2.5	LLDPE, LDPE, HDPE, PPHP, PPCP, EVA	molding (Injection, Blow & Roto), Films, Tapes, Pipes, Profiles
SP7138 0002 (Ultra White)	2	0.5 – 1.5	LLDPE, LDPE, HDPE, PPHP, PPCP, EVA	molding (Injection, Blow & Roto), Films, Tapes, Pipes, Profiles

Note: *In case further information is required, contact SPL representative for recommendation / clarification.

Regulatory Compliance

At recommended levels, SPL OB Master batch is suitable for food contact applications. All grades are Heavy Metal free and are compliant with RoHS regulation.

Packaging & Storage

Material is supplied in pellet form, packed in 25 Kg laminated bags. SPL recommends storage of material in a ventilated & covered facility, protected from Moisture, Sunlight and Heat. The packing material used is not UV stabilized and hence should not be exposed to sunlight.



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