

REFLECTIVE PAINT

EJ-510, EJ-520

EJ-510 Reflective Paint for Plastic Scintillators

This is a bright white paint consisting of titanium dioxide pigment and a water soluble paint base selected for excellent resistance to yellowing and good adhesion. While primarily intended for coating of blue-emitting plastic scintillators, EJ-510 employs a blend of pigments selected also for enhanced reflectivity for longer wavelength scintillators with green emissions. This is a diffuse reflector for use on scintillators where the length is not greater than twice the width. It should not be used on long, narrow, optical elements. In addition to plastic scintillators, EJ-510 has been successfully applied to acrylic light guides and a variety of metals.

Maximum reflectivity is achieved by the application of three or four thin coats of EJ-510. After it has thoroughly dried, EJ-510 is not water soluble. However, it may be removed from a painted article by gentle rubbing with the aid of a mixture of water and isopropanol. One liter of EJ-510 can easily cover 10 square meters with three layers of the coating.

Note: EJ-510 should not be used on hygroscopic materials such as some inorganic scintillators.

EJ-510 Instructions For Use: Always shake well before each use. Apply to clean, dry, sanded (240 - 400 grit) or sand-blasted surfaces for best adhesion. Paint may be diluted with water as needed for application. Allow paint to dry thoroughly between coats. For best reflectivity, apply a minimum of three coats.

PACKAGE SIZES	
EJ-510	EJ-520
500 ml	500 g
1000 ml	1000 g

COMPOSITION	EJ-510
Typical 3-Layer Coating Thickness (mm)	0.11
Typical Density of Dried Coat (mg/cm ²)	13
Ti Atoms per cm ² ($\times 10^{19}$)	6.71
C Atoms per cm ² ($\times 10^{20}$)	1.12
H Atoms per cm ² ($\times 10^{20}$)	2.25
O Atoms per cm ² ($\times 10^{20}$)	1.90



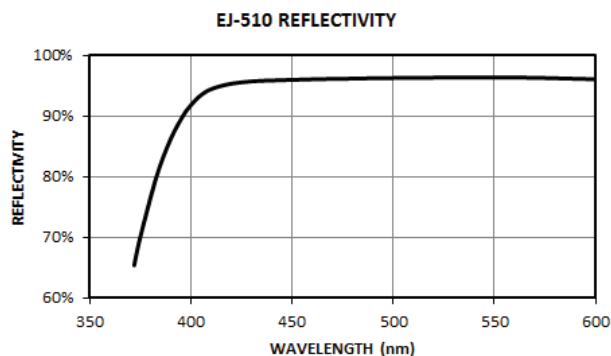
EJ-510



EJ-520

EJ-520 Reflective Paint for Liquid Scintillators

This is a bright white paint consisting of titanium dioxide pigment and a paint base selected for its inertness to the solvent action of nearly all liquid scintillators. Unlike other paints based on epoxies, EJ-520 does not develop a yellow cast as it ages. The paint base is a two-part polyurethane selected for these optimal properties. It is intended for coating the inside walls of metal cells designed for holding liquid scintillators, including liquid scintillators based on xylene and toluene which exhibit strong chemical solvent activity. Liquid EJ-520 contains strong solvents which can attack many plastics and hence should not be used on plastic scintillators or on liquid scintillator cells fabricated out of plastic materials such as acrylics. One liter of EJ-520 covers about 1.5 square meters with four coats.



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