



Description

Cobalt is a fundamental accelerator used in conjunction with organic peroxides to cure unsaturated polyester systems. Radical polymerization will be initiated as a result of rapid decomposition of the organic peroxides.

Supply Form

Octa-Soligen® accelerators are based on metal salts of 2-ethylhexanoic acid (octoates) or their isomers. We supply cobalt octoates with different metal contents in different solvents that meet the specific requirements of various applications:

Product	Applications
Octa-Soligen® Cobalt 10 (xylene)	unsaturated polyesters
Octa-Soligen® Cobalt 12 (xylene)	unsaturated polyesters
Octa-Soligen® Cobalt 6 (xylene)	unsaturated polyesters

Properties

Octa-Soligen® Cobalt accelerates the film structure and the cure of the resin binder. High addition rates should be avoided. A very low dosage of cobalt supports this essential peroxide decomposition. In turn, radicals cure the polyester resin by starting a polymeric chain reaction. In case of too high addition rates, film imperfections like crimping, cracks and discoloration, due to overheating, can occur.

Various types of accelerators are available. In addition to the accelerators mixed in xylene there are accelerators mixed in white spirit and fatty acid esters as reactive diluents.

Applications

Octa-Soligen® Cobalt grades are used in unsaturated polyester systems for coatings and casting resins, as well as in synthetic resins for fiber reinforced tools.

It can also be used as an accelerator in unsaturated polyester resins, resulting in a shorter gel time.

Dosage

In unsaturated polyesters, the addition of cobalt is between 0.005 and 0.020 %, calculated as metal on solid binder.

Octa-Soligen® Cobalt accelerators can be used in combination with 15% POTASSIUM HEX-CEM and Soligen® Copper 8.

15% POTASSIUM HEX-CEM helps to reduce discoloration of the resin binder that results from the cobalt. This is obtained due to a reduction of the cobalt which overlays the natural cobalt color shade.



In combination with Soligen® Copper 8, pot life can be controlled. In addition, the curing process will proceed with less thermal development. This is important to prevent surface imperfections, cracks and discoloration, particularly in case of bigger tools.

Irrespective of these guidelines, the addition should always be determined in preliminary trials.

Storage

Protect from the effects of weathering and store at temperatures between 5 and 30 °C.

Once opened, containers should be resealed immediately after each removal of the product.

Safety

Please refer to our safety data sheet for information relating to product safety.

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