borchers

Borchers® Deca Cobalt 10 (xylene)

Accelerator based on metal salts of neodecanoic acid (neodecanoate) or their isomers

Physical Characteristics

Appearance	Clear, low-viscous, blue-violet liquid ISO 4619
Metal content	Co 9,80 – 10,20 % ISO 4619
Non-volatile content	48,0 – 62,0 % ISO 3251 (2g, 3h, 105 °C)
Viscosity	Max. 200 mPa.s (20°C) ISO 3219 (A)
Density	0,980 - 1,020 g/cm^3 (20 °C) DIN 51757
Solvent	Xylene

Features

- Cobalt neodecanoate is supplied with 10 % metal content in xylene as solvent that meets the specific requirements of various applications
- 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
- Accelerates the film structure and the cure of the resin binder
- Shorter gel times when used in unsaturated polyesters

Applications

- Unsaturated polyesters for coatings and casting resins
- Synthetic resins for fiber reinforced tools

Dosage

In unsaturated polyesters, the addition of cobalt is between 0.005 and 0.020 %, calculated as metal on solid binder. Borchers® Deca Cobalt 10 (xylene) can be used in combination with 15 % Potassium Hex-Cem® and Borchers® Deca 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 Borchers® Deca 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.

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.

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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