

# EMULSION HARDENERS

FOTECHEM 2100, 2110, 2111 and 2113



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## 1. DESCRIPTION

- ◆ The chemical hardening (curing, catalyzing) of ready-to-print stencils results in permanent, no longer reclaimable screens. The stencil becomes more water resistant too
- ◆ Depending on the type of emulsion and the type of FOTECHEM Hardener the durability of the screen is more or less completed
- ◆ Basically water resistant screens (for textile printing) are thoroughly and completely hardened after the treatment
- ◆ Solvent resistant screens become water resistant
- ◆ Dual-cure (polymer) screens can undergo a negative effect by becoming brittle unless water based inks are used
- ◆ FOTECHEM 2111 is a concentrate



## 2. DIRECTIONS FOR USE

Only dual-cure screen emulsions with a content of acrylates can be post-exposed. This increases the ink suitability; the removal however does not become distinctly more difficult.

## 3. THREE TYPES OF CHEMICAL HARDENERS

FOTECHEM 2100: Color: red	Economic; most suitable for water resistant (textile) emulsions. After application the curing needs 60°C during 1 hour or 24 hours at room temperature. The drying oven can be used.
FOTECHEM 2110 and 2111: Color: yellowish-brownish  These two hardeners contain a small amount of solids. To avoid clogging of the mesh use air pressure or blot from both sides with absorbing paper.	More expensive but suitable for most screen emulsions. They do not need heat curing. Hardening becomes more effective. 2110 is ready-to use; with possibility for partial removal depending on type of emulsion when further reduced with 1 part water; would need pressure spray above 50 bar for removal. 2111 is concentrated and most effective but can be used as ready-to-use solution. A stronger chemical hardening takes place. When reducing 2111 1:1 with water it becomes identical to 2110.
FOTECHEM 2113: Colorless	Ready-to-use water based formulation. Apply to both sides of the dry stencil by a sponge. Let dry. The stencil is ready to print.

## 4. PROCESSING

- ◆ FOTECHEM 2110, 2111 and 2113 must only be used on polyester and steel mesh. Only FOTECHEM 2100 is suitable for nylon mesh
- ◆ Before the treatment the stencil must be thoroughly exposed, washed out and completely dry. Apply the hardener from both sides with a soft brush, sponge or rags. Never rub. Protect skin with gloves, wear goggles
- ◆ FOTECHEM 2100  
After the application cure during 1 hour at 60°C or 24 hours at room temperature
- ◆ FOTECHEM 2110/2111  
After application wait for 5 minutes. Then use newspaper to blot the screen from both sides. Afterwards it is recommended to blow the stencil openings with pressure air. Then let dry thoroughly. Heat is not necessary for curing. As soon as the stencil is dry it is ready for printing
- ◆ FOTECHEM 2113  
Let dry after the application of the hardener. Then the stencil is ready to print.  
To prevent clogging any residue of the hardener should be washed out with water

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## 5. PACKAGING

Products available in plastic containers

FOTECHEM 2100	24 x 1L; 6 x 5L; 1 x 25L
FOTECHEM 2110/2111	24 x 1L
FOTECHEM 2113	24 x 1L, 1 x 25L

## 6. HEALTH & SAFETY

- ◆ A drying acceleration by means of cold or warm air supply must be avoided. Temperatures over 30°C can damage the fabric
- ◆ Pay attention with pre-used screens that have been worn out mechanically or chemically
- ◆ Attention should be paid to meshes with thread diameters below 34 microns to follow exactly the application procedure. In case of mesh damages we cannot accept any liability or pay for damages
- ◆ Do not use FOTECHEM 2091 for stainless steel mesh

## 4. STORAGE

- ◆ Storing time: 6 - 9 months without loss of quality at temperature below 25°C
- ◆ Store in a dry, frost-free area and not exposed to direct sun light
- ◆ Keep containers well closed

## 5. HEALTH & SAFETY

- ◆ For industrial use only
- ◆ Protect hands and face
- ◆ Keep out of reach of children
- ◆ If contacted with the eyes wash with a large quantity of water and consult the doctor
- ◆ If contacted with skin wash with plenty of water
- ◆ A safety data sheet is available on request

## 6. STORAGE

FOTECHEM 2100	1 year
FOTECHEM 2110/2111	1 year
FOTECHEM 2113	1 year if protected from light and high temperatures

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