



Fotec AG  
Phone:  
e-mail:

Eigenheimstr. 22  
P.O.Box 1123  
++41 1 913 30 00  
[info@fotec.ch](mailto:info@fotec.ch)  
CH-8700 Küsnacht  
Switzerland  
Fax: ++41 1 910 45 25  
[www.fotec.ch](http://www.fotec.ch)

TECHNICAL INFORMATION

Küsnacht, April 1996

# FOTECHEM HARDENER 2100 and 2110/2111

(Hardening solution; catalyser)

## 1. Purpose

- The chemical hardening (curing, catalysing) of ready-to-print stencils results in permanent, no longer removable screens. The stencil becomes more water resistant.
- Depending on the type of emulsion and the type of FOTECHEM Hardener the durability or water resistance of the screen is more or less complete. See table on last page.
- Basically water resistant screens (for textile printing) are thoroughly and completely hardened after the treatment.  
Solvent resistant screens show a higher humidity resistance.  
Dual-cure (polymer) screens can undergo a negative effect by becoming brittle unless water based inks are used.

## 2. Difference to post-hardening by exposure

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 distinctively more difficult.

## 3. Two 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 2110/2111: color: yellowish-brownish	more expensive but suitable for most screen emulsions. They do not need heat curing. Hardening becomes more effective.
FOTECHEM 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.
FOTECHEM 2111	is concentrated but can be used as ready-to-use solution. A stronger chemical hardening takes place. When reducing FOTECHEM 2111 1:1 with water it becomes identical to FOTECHEM 2110.

#### 4. **Processing**

- FOTECHEM 2110 and 2111 must only be used on polyester and steel mesh. FOTECHEM 2100 however is suitable for nylon mesh too.
- 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.

#### 5. **Packaging**

- FOTECHEM 2100: plastic bottles (24 x 1 lt; 6 x 5 lt; 1 x 25 lt)
- FOTECHEM 2110/2111: metal cans (24 x 1 lt)

#### 6. **Safety and health on the working place**

- For industrial use only.
- Protect hands and face.
- The FOTECHEM hardeners carry a warning label.
- 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. FOTECHEM 2100 and 2110/2111 carry on the product label the prescribed R and S phrases.

#### 7. **Application possibilities**

See table on next page.

### FOTEC AG

These Technical Informations are published without warranty. The results shown in these Technical Informations are based on laboratory testing. The supplier declines any responsibility for incorrect use of these products which are manufactured and sold for industrial use only.