Technical Instruction Sheet

Characteristics: AKEMI® UV-Fillers Thassos (extra liquid, liquid, knife grade) are stone fillers based on unsaturated polyester resins dissolved in styrene, hardening by ultra-violet radiation. The products are distinguished by the following qualities:

- neutral colour (transparent – milky white)
- after product has cured there will be hardly any yellowing effect therefore it is recommended for white and very light stones / reconstituted stones
- 1-component product for thin layers (< 5 mm)
- very rapid surface drying (already after 20-30 seconds of radiation)
- good penetration into small fissures, sandy and clayey areas
- variable application due to different consistencies
- hardening is also possible by sunlight

Field of Application: UV-Fillers Thassos are mainly used for working natural / reconstituted stone slabs in polishing line plants for filling small holes, fissures and strengthening porous areas without having to add a hardener component. Due to various consistencies available (knife grade, liquid, extra liquid) everyone can choose the most suitable quality. UV-Fillers Thassos contain a special additive which allows thicker layers or cavernous holes to harden, by adding AKEMI® UV Hardener
T liquid. Yet, hardening time is still more than 6 - 8 hours at 20 degrees Celsius when adding 0.5 % of UV Hardener T liquid.

Technical Conditions: Special UV light sources with a wavelength of 365-420 mm are necessary for the hardening process:

1. Fluorescent tubes
   - Philips TL/10R (40-100 W, different sizes)
   - Osram UVA (40-80 W, different sizes)
2. UV spots (combination of UV- and IR-radiation)
   - Philips MLU (300 W)
3. Metal halide lamps
   - Hönle Uvaspot 400 T
   - Osram Ultra-Vitalux (300 W)

The best result is achieved when using metal halide lamps or UV-spots, their effect in depth and speed of hardening is better than that of fluorescent tubes.

Instructions for Use:

1. The surface to be treated must be clean, dry and free from dust.
2. To fill bigger holes or carvenous holes, 0.5 % of AKEMI® UV Hardener T liquid should be added.
3. Apply the required quantity of UV-fillers Thassos with a spatula.
4. Expose the filled areas to UV-radiation:
   a) Fluorescent tubes : for at least 4 - 8 min
   b) UV spots or metal halide lamps : for at least 2 - 5 min
5. The treated slabs can then be ground and polished.
6. Tools can be cleaned with AKEMI® Nitro-Dilution.

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Special Hints:

- Use AKEMI® Liquid Glove to protect your hands.
- When filling thicker layers or cavernous holes (> 5 mm) without adding UV Hardener T liquid there will be no hardening at the bottom of the layer which causes a permanent smell of styrene, poor adhesion and discolouring to green.
- Poor adhesion on humid surfaces
- Insufficient radiation time will cause insufficient hardening and no stability. During grinding or polishing procedure the insufficient hardened UV Fillers Thassos will be chipped off. Furthermore a discolouring to green is possible
- Once hardened, solvents can no longer remove the filler. Removal is only possible mechanically or by higher temperatures (> 200°C).
- Being worked properly, the hardened filler is being recognised as not injurious to health.

Safety Measures: see EC Safety Data Sheet

Technical Data:

Colours:	UV-Filler Thassos extra liquid	transparent-milky white
	UV-Filler Thassos liquid	transparent-milky white
	UV-Filler Thassos L-Special	transparent-milky white
Density:	1.13 -1.51 g/cm³	
Working time / min.:		
a) without UV Hardener T liquid at 20°C:		at room temperature unlimited (without radiation)
b) 0.5 % UV Hardener T liquid at 20°C:		approx. 6 - 8 hrs (without radiation)
Shelf life:	1 year approx. if stored in cool place free from frost in its tightly closed original container.	

Notice: The above information is based on the latest stage of technical progress. It is to be considered as a non-binding hint and does not release the user from a performance test, since application, processing and environmental influences are beyond our realm of control.

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