



Pröll KG  
P.O. Box 4 29  
D-91773 Weissenburg i. Bay.  
Germany  
Phone: +49 9141 906-0  
Fax: +49 9141 906-49  
E-mail: [info@proell.de](mailto:info@proell.de)  
Internet: [www.proell.de](http://www.proell.de)

## Water-based Two-Component Screen Printable Adhesive

can be used as overprinting lacquer/adhesion promoter to make possible or improve the bonding of IMD/FIM screen printing inks – e.g. NORIPHAN® HTR – with various plastics when back molding.

AquaPress® ME and AquaPress® M1 White offer

- excellent adhesion to many plastic surfaces/-films
- good lamination and molding properties
- high flexibility

AquaPress® can be back molded with the following plastic resins:

- polycarbonate, e.g. Makrolon® 2405
- PC/ABS blends, e.g. Bayblend® T 65
- ABS, e.g. Novodur P2H-AT
- PMMA, e.g. PLEXIGLAS® ZK5BR or PLEXIGLAS® 8N

Milky white high viscosity liquid

To achieve maximum homogeneity, all auxiliaries must be added and stirred into the mixture.

As needed, auxiliaries should be added in the following sequence: defoamer, hardener, matting agent or thinner.

should be added at before printing if necessary.

Adding 2 – 3 % AquaPress® Hardener L 49858 is absolutely necessary.

The hardener improves the resistance of the finished components with relation to:

- temperature
- water/moisture
- durability of adhesion
- reduction of sticking to mold
- reduction of washout in back molding

The mixture should be used within 6 – 8 hours. The actual pot life depends on temperature and ink quantity.

for further reduction of sticking to mold.

AquaPress® ME and AquaPress® M1 White are a press-ready formulation. If required it can be thinned by using:

Addition of 5 % will improve screen open time and leveling.

To blend in auxiliaries homogeneously, a stirrer with approx. 600 rotations per minute together with an effective propeller should be used.

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Before applying AquaPress® ME or AquaPress® M1 White to a decorating ink as a bonding agent for IMD, it must be determined whether the bonding agent adheres to the decorating ink used.

The decorating ink must be thoroughly tempered before printing on it with AquaPress® (see Technical Information on decorating inks).

Solvent residue in the decorating layer can lead to washout in direct molding.

Polyester fabrics with 77 – 100 threads per cm (195 – 255 threads per inch).

A waterproof stencil must be used! Norikop 7 S is recommended.

with an average hardness of 65° – 70° Shore A.

Use a round edge bar and adjust to achieve a flood ink-thickness of approx. on the screen.

The humidity in the printing room should be higher than 50 % to avoid drying of ink in the screen.

- 1) Stir bonding agent AquaPress® ME or AquaPress® M1 White before using, then add defoamer, hardener, matting agent or thinner, one at a time, in sequence, as needed.
- 2)
- 3) Pour the adhesive into the screen.
- 4) Start printing.

During long printing runs or if the printing room temperature is above 25 °C (77 °F), spraying water in the screen where the adhesive is not moved is recommended to avoid skinning.

- Short printing stop (max. 2 min.):  
Cover stencil with a thick film.
- Long printing stops (max. 30 min.):  
Cover stencil with a thick layer of AquaPress® ME or AquaPress® White and spray water on it.
- For breaks longer than 30 min.:  
Remove AquaPress® ME or AquaPress® M1 White immediately and clean with

- 1) Take out the residual AquaPress® ME or AquaPress® M1 White and spray Aqua-Jet® Liquid Cleaner L 34642 onto the mesh immediately.
- 2) Take the squeegee out of the press and clean.
- 3) Remove the printable adhesive from the screen and do not put residues of the adhesive back into the original container.
- 4) Take screen out of the machine and clean it. If an immediate cleaning is not possible, submerge the screen into water. The screen can then be cleaned at any time.
- 5) Dried adhesive residues may be removed using a cleaner such as

AquaPress® ME and AquaPress® M1 White dry quickly by evaporation of the water in tunnel dryers. The suitable range is from 70 – 90 °C (158 – 194 °F).

To prevent objects printed with AquaPress® from sticking to the mold, they could be heated to 90 °C (194 °F) for 3 hours.

If printed films stick to the mold despite use of the hardener and tempering at 90 °C (194 °F), a 3 – 5 % proportion of Matting Agent 2009 can also be added before the printing.

Note: Addition of the matting agent reduces the viscosity of AquaPress®; it becomes tinner.

If forming and back molding of printed films are to be done 3 – 4 weeks after the printing, tempering the AquaPress® layer may be omitted.

If objects printed with AquaPress® are to be subsequently printed with NORIPHAN® HTR, they must be tempered at least 1 hour at 90 °C (194 °F) to prevent the NORIPHAN® HTR layer from cracking.

A minimum film thickness of 10 µm is necessary.

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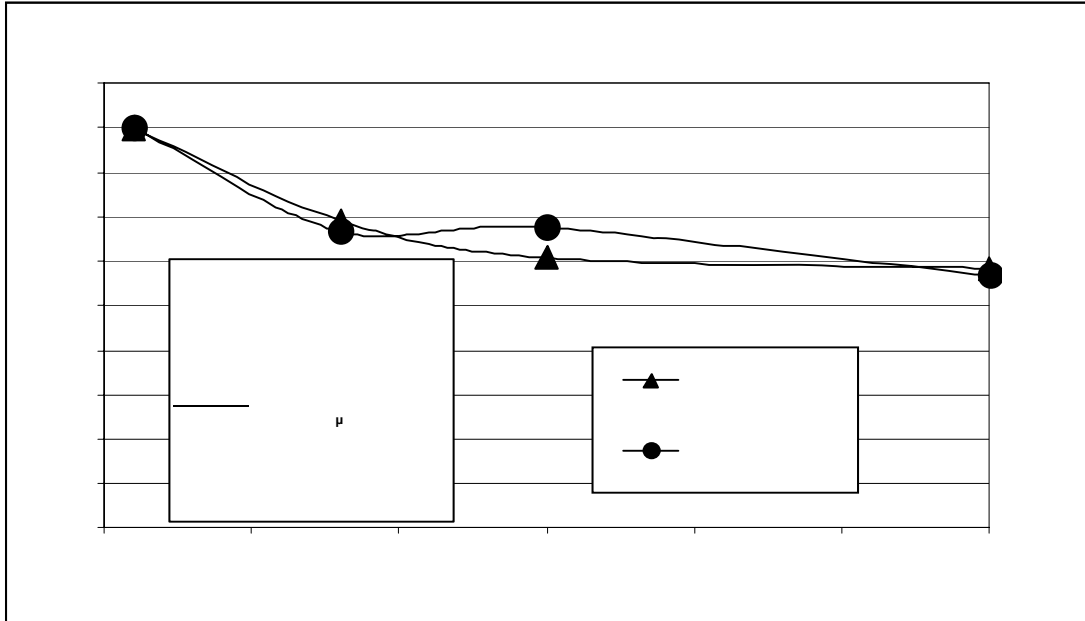


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		µ	
77-48	195-48	1	10
77-48	195-48	2	15
90-48	230-48	1	8
90-48	230-48	2	12

The peel strength strongly depends on the type of inks as well as their pigmentation.

The peel strength is also greatly influenced by the type of plastic used for the back molding and its processing parameters, such as the temperature of the resin (mass), amount of heat yielded, injection/shot weight, injection time, temperature of the mold, etc.



Allow AquaPress® as well as all the auxiliaries to be added to adjust to room temperature in the closed container before use.

The shelf life stated on the label assures the ink's quality and refers to unopened original cans stored in a dry place at temperatures between 5 °C (40 °F) and 25 °C (75 °F).

Printing results, to a large extent, depend on the substrate as well as the printing and application conditions. We recommend checking your printing materials under your conditions of use before performing any production runs. Materials that are supposed to be identical may vary from manufacturer to manufacturer and even from batch to batch. Some substrates may have been treated with or contain sliding agents, antistatics or other additives which may impair the adhesion of the inks.

In general please refer to our technical leaflet "General Information on Screen Printing Inks" which may be downloaded from our website [www.proell.de](http://www.proell.de), click Download ⇒ Screen Printing Inks ⇒ General information on screen printing inks.

Always wear safety gloves and eye protection. In case of contact with the skin, the affected area should be rinsed with sufficient amount of water.

The information contained in the technical information/instruction sheets or other product information sheets is based on product testing conducted by Pröll. Because printing and environmental factors critically affect each individual ink application, the above mentioned information and instructions represent only general recommendations concerning product characteristics and directions for use and should not be construed as representing express warranties regarding the product. The information and instructions in no way release the purchaser from his obligation to verify and test the inks and their application for the specific request, regarding: product characteristics, weather resistance, mixing proportions, gloss, thinning, special mixtures, printability, drying speed, cleaning, effects on or of other materials to be contacted and safety precautions. All details contained in the instruction sheet "General Information on Screen Printing Inks" are to be considered. The further manufacture and use of products containing our inks by the purchaser takes place beyond our control, and the responsibility for further application and use of our product resides solely with the purchaser. Pröll disclaims any warranties, express or implied.

This information supersedes all previous technical information.