

# XP Remover K

## KMPR Photoresist Stripper

**Remover K** is an aqueous-based solution designed for removing KMPR photoresist. It is a two-part chemistry, which is activated prior to use. No dilution is required and the solution is ready to use once activated. Wafers are first processed in Remover PG, followed by Remover K which allows the KMPR photoresist to completely dissolve away in the final, Neutralizer K rinse.

The combination of KMPR 1000 and Remover K produces very high aspect ratio (6:1) dense plated features of copper, gold and other commonly plated metals.

### Features

- Aqueous solution
- Very high aspect ratio imaging and plating
- Vertical sidewalls

### Recommended Process

#### Plating

- (1) Deposit Seed Layer
- (2) Descum: RIE 2 min, 100 W, 10 sccm O<sub>2</sub>, 100 mTorr
- (3) HMDS Prime
- (4) Coat, Expose, Post Exposure Bake, Develop KMPR
- (5) Descum: RIE 2 min, 100 W, 10 sccm O<sub>2</sub>, 100 mTorr
- (6) Electrolytic Plating: 0.1 - 0.2 A/dm<sup>2</sup>
- (7) Deionized Water (DIW) rinse

#### Preparation

- (8) Add the entire contents of Remover K Part A to tank
- (9) Add the entire contents of Remover K Part B to tank
- (10) Mix well

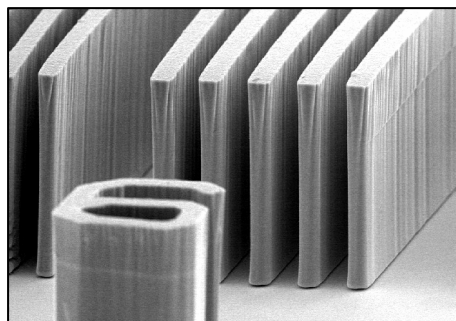
#### Removal

- (11) Remover PG: 20 min, 70°C
- (12) Deionized Water (DIW): 10 sec spray rinse, 20°C
- (13) Remover K: 30 min, 70°C
- (14) Deionized Water (DIW): 10 sec spray rinse, 20°C
- (15) Neutralizer K (ready to use): 2 min, 20°C
- (16) Deionized Water (DIW) rinse

KMPR 1000 will completely dissolve and readily strip using the combination of MicroChem's Remover PG (NMP), Remover K and Neutralizer K. The actual strip time will depend on the resist thickness, bake conditions, solution temperature and agitation method (such as ultrasound). For more information on MicroChem's Remover PG please see the product data sheets.

**Note:** *Hard bake is NOT REQUIRED OR RECOMMENDED to enhance KMPR plating resistance. See KMPR 1000 Technical Data Sheet for more process details.*

### High Aspect Ratio Plating



Copper Plated Dense Lines  
6 μm features, 46 μm tall

### Storage

Store XP Remover K and Neutralizer K in tightly closed, upright containers at room temperature. Store away from light, heat, organics and sources of ignition. Shelf life is twelve months from the date of manufacture for storage at room temperature.

### Disposal

XP Remover K and XP Neutralizer K should be included in a separate waste stream compatible for oxidizers to be discarded for destruction or reclaimed in accordance with local state and federal regulations. It is the responsibility of the customer to ensure that the disposal of XP Remover K and XP Neutralizer K and residues made are in observance all federal, state, and local environmental regulations.

### Environmental, Health and Safety

Consult the product Material Safety Data Sheet before working with XP Remover K and XP Neutralizer K. XP Remover K is an aqueous oxidizer solution. Handle with care. Wear chemical goggles, chemical gloves and suitable protective clothing when handling XP Remover K and XP Neutralizer K. Do not get into eyes or onto skin or clothing. Use with adequate ventilation to avoid breathing vapors or mist. In case of contact with skin, wash affected area with soap and water. In case of contact with eyes, rinse immediately with water and flush for 15 minutes lifting eyelids frequently. Get emergency medical assistance.

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