ma-P 1275 and ma-P 1275HV – Positive Tone Photoresists

Versatile high viscosity positive tone photoresists for microsystems technology

Characteristics
- Specifically designed for electroplating of structures in microsystems technology
- High stability in acid and alkaline plating baths
- High dry and wet etch resistance
- Good thermal stability of the resist patterns attainable
- Aqueous alkaline development
- Easy to remove
- Side wall angle up to 87° with mask aligner broadband exposure
- Suitable for pattern reflow

Applications
- Mould for electroplating
- Etch mask for metal and semiconductor substrates – e.g. microelectronics from reflowed patterns
- Mask for ion implantation
- Mould for UV moulding after reflow

Process flow

Electroplating

Etching

Film thicknesses

<table>
<thead>
<tr>
<th>Film thickness</th>
<th>ma-P 1275</th>
<th>ma-P 1275HV</th>
</tr>
</thead>
<tbody>
<tr>
<td>µm</td>
<td>rpm</td>
<td>s</td>
</tr>
<tr>
<td>7.5</td>
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</tr>
<tr>
<td>11</td>
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<tr>
<td>50</td>
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Spin curves

UV/vis spectra

Pattern transferred into OrmoComp by twofold UV moulding

25 µm electroplated Ni, 20 µm coil
All resist patterns obtained by mask aligner broadband exposure

20 µm ma-P 1275 pillars, 60 µm diameter

20 µm ma-P 1275HV, 60 µm diameter

See also

Wavelength [nm]
Absorption coefficient [µm⁻¹]

Spin speed [rpm]
Film thickness [µm]

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