MasterEmaco® A 660
(Formerly known as Acryl 60)

Liquid bonding agent for cement mixes

**DESCRIPTION**

MasterEmaco A 660 is a special formulation of acrylic polymers and modifiers designed for use as an additive for MasterSeal 590 cement mixes and other highly alkaline building materials. MasterEmaco A 660 is a milky-white liquid with a viscosity slightly higher than that of water.

**RECOMMENDED USES**

MasterEmaco A 660 is recommended for:

- **bonding slurry coats**
- **dry screeds**
- **render key coats**
- **modifying renders**
- **patching and repair mortars**

**FEATURES AND BENEFITS**

- **Stable even under wet conditions** – Unaffected by ultraviolet light, contact with water and provides good durability under all conditions.
- **Plasticising action** – Improves the workability of cement mixes, aiding ease of application.
- **Increased cohesion of mixes** – Improves all physical characteristics of cement mixes, therefore increasing resistance to wear and weather.

**PROPERTIES**

**Strength comparison for 3:1 sand/cement mortar**

<table>
<thead>
<tr>
<th></th>
<th>Water only</th>
<th>Water: MasterEmaco A 660 1:1 by volume</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N/mm²</td>
<td>N/mm²</td>
</tr>
<tr>
<td><strong>Compressive</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ASTM C 109)</td>
<td>26.1</td>
<td>29</td>
</tr>
<tr>
<td>(28 days)</td>
<td>27.9</td>
<td>31</td>
</tr>
<tr>
<td><strong>Flexural</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ASTM C 348)</td>
<td>7.23</td>
<td>12</td>
</tr>
<tr>
<td>(28 days)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Tensile</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(ASTM C 109)</td>
<td>1.45</td>
<td>2.42</td>
</tr>
<tr>
<td>(28 days)</td>
<td>1.52</td>
<td>2.47</td>
</tr>
<tr>
<td><strong>Shear bond</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>0.44</td>
<td>0.55</td>
</tr>
<tr>
<td>(28 days)</td>
<td>0.53</td>
<td>1.30</td>
</tr>
</tbody>
</table>

**APPLICATION**

Do not apply mixes modified with MasterEmaco A 660 to frozen substrates or if the ambient temperature is below 5°C or expected to fall below 5°C within 24 hours. Avoid application in direct sunlight.

Do not use MasterEmaco A 660 where the application is likely to be in prolonged contact with hydrocarbons such as fuel oils, diesel oil and petrol.

**In a bonding slurry coat**

Blend ordinary Portland cement into neat MasterEmaco A 660 and mix with a trowel or wing paddle mixer attachment in a slow speed drill (400-600 rpm) until a smooth lump-free slurry is produced.

Apply the mix only to a clean, prepared, sound surface, which has been pre-dampened but has no free-standing water. Apply to the concrete whilst the slurry is still wet. Work the slurry well into the surface with a stiff brush or broom. Do not allow the slurry to dry out.

**Dry screeds**

Mix premixed sand and cement (3:1) with MasterEmaco A 660 diluted with water (1:2) together to the required consistency. Apply and cure screed according to local specifications and site practice. MasterEmaco A 660 will aid the curing of the screed, prevent drying shrinkage and stop dusting.

**In a render key coat**

Premix dry coarse sharp sand with Portland cement (2:1) and mix with MasterEmaco A 660 diluted with water (1:1) until a slurry consistency is obtained. Ensure that the surface has been prepared to a clean, sound condition free from any surface coating, algae, foreign matter or any other products that could affect the bond adversely. The slurry should be brushed vigorously into the pre-dampened surface after removing any free-standing water. All pores and voids must be filled with the mix and stippled or heavily textured. The
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Best results are obtained with a stiff broom. Leave to harden overnight before rendering.

For modifying renders

Premix cement with render sand (0-4 mm) (1:2) and mix with MasterEmaco A 660 diluted with water (1:3) until the desired render consistency is obtained. For larger areas, use a forced-action mixer of the rotating drum, pan or trough type, adding the dry-mixed mortar to the mixing liquid until a cohesive mass suitable for trowel application is obtained.

Always apply the mix to a prepared surface, preferentially with a render key coat, which has been dampened but has no freestanding water. Apply the mix using standard plastering techniques; avoid exceeding the maximum designed depth of application. For a smooth finish, the best results are obtained with a stainless steel trowel.

For patching and repair mortars

Premix Portland cement with clean sharp sand (0-6 mm)(1:3) and then mix with MasterEmaco A 660 and water mixed (1:1) until the desired consistency has been obtained. For large areas, use a forced action mixer of the rotating drum, pan or trough type adding the dry-mixed mortar to the mixing liquid until a dry consistency is obtained. Small quantities can be thoroughly mixed by hand.

Apply the bonding slurry as described earlier in this publication to the prepared patch or repair areas. If there is steel reinforcing in the repair, this must also be coated with the slurry. Never allow the slurry to dry out.

This mixed material must be firmly pushed into place and compacted with a trowel or float in layers not exceeding 20 mm. Successive layers can be placed once the initial set has taken place. This mix is not suitable for feather edging since the minimum recommended depth required is 10 mm.

Curing

The best results are obtained from mortars modified with MasterEmaco A 660 if they are damp-cured for 24 hours and allowed to dry out gradually. Do not use curing compounds.

Estimating Data

<table>
<thead>
<tr>
<th></th>
<th>MasterEmaco A 660: Potable water (by volume)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bonding slurry</td>
<td>1:0</td>
</tr>
<tr>
<td>Dry screeds</td>
<td>1:2</td>
</tr>
<tr>
<td>Key coats</td>
<td>1:1</td>
</tr>
<tr>
<td>Renders</td>
<td>1:3</td>
</tr>
<tr>
<td>Repair mortars</td>
<td>1:1</td>
</tr>
</tbody>
</table>

Packaging

MasterEmaco A 660 is available in 20L plastic carboys and 205L drums.

Shelf Life

MasterEmaco A 660 can be kept for 12 months if stored in original unopened packaging. MasterEmaco A 660 should be stored under cover and clear of the ground and stacked not more than 4 carboys high. Protect from freezing and discard if it has frozen.

Precautions

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the BASF Material Safety Data Sheet (MSDS) from our office or our website.

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