SEMCO* FD
Waterbased fast dry coating
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Introduction
Solvent based refractory coatings for foundry applications are predominantly used for the production of larger castings or small casting series because of issues regarding the effective drying of water-based products:
+ Lack of effective drying capability
+ Reduced productivity through extended drying periods
+ Limited storage space

However the use of solvent based products in jobbing foundries is constantly under review due to the health, safety and environmental issues that arise:
+ Release of VOC into the environment
+ Respiratory issues relating to solvents
+ Restrictions on the storage and use of flammable products
+ ATEX or equivalent certification for associated equipment

SEMCO FD products offer a non-hazardous alternative to solvent-based coatings, allowing jobbing foundries to transition to water-based products that dry significantly faster than traditional water-based coating.

Product Description
SEMCO FD is a range of water-based coatings designed for flow coating applications that will dry quicker than traditional water-based products. The range includes products with a variety of refractory fillers making them suitable for different metal types and casting conditions:
+ Zircon based for the heaviest castings
+ Aluminium silicates for heavy iron and smaller steel castings
+ Olivine for less demanding applications and small manganese steel castings

Benefits
SEMCO FD products are formulated with a very high solids content so that there is significantly less water to be evaporated during drying. This is complemented with a new rheological system that allows for excellent flow properties to ensure correct layer build-up and the elimination of runs and drips. The reduced water content enables the applied layer to air dry quicker than a traditional water-based coating or allows for a much smaller investment in drying capability with additional savings due to the significantly lower energy consumption required to dry the product. This is all achieved whilst maintaining excellent performance of the product under casting conditions.

<table>
<thead>
<tr>
<th>% Remaining Moisture</th>
<th>Drying time comparison (oven)</th>
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<tbody>
<tr>
<td>3.0</td>
<td>3.3</td>
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<tr>
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<tr>
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<td>1.2</td>
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<tr>
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<tr>
<td>0.6</td>
<td>0.3</td>
</tr>
<tr>
<td>0.3</td>
<td>0.0</td>
</tr>
</tbody>
</table>

Drying time comparison (oven)

Flow coating application