Description

E-Z Mesh is a secondary reinforcement for concrete utilizing carbon steel fibers and virgin synthetic (polypropylene) fibers. This combination addresses both plastic shrinkage and restrained shrinkage cracking. Unlike welded wire fabric or light rebar, E-Z Mesh is distributed throughout the entire concrete matrix.

Primary Applications

* Slab on ground
* Office Buildings
* Commercial market
* Schools
* Composite metal decks
* Churches
* Retail Stores

Benefits/Features

- Use in place of wire mesh (for temperature and shrinkage reinforcement)
- Reduce plastic shrinkage cracks
- Can be pumped

Physical Properties:

<table>
<thead>
<tr>
<th>Steel Fibers</th>
<th>Properties</th>
<th>Synthetic Fibers</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTM A820</td>
<td>Material Type</td>
<td>ASTM C-1116 Type III</td>
</tr>
<tr>
<td>Carbon Steel</td>
<td>Tensile Strength</td>
<td>Virgin Polypropylene</td>
</tr>
<tr>
<td>414-828 Mpa (60-120 ksi)</td>
<td>Fiber Length</td>
<td>19.0 mm (3/4&quot;)</td>
</tr>
<tr>
<td>25.0 mm (1&quot;)-38.0 mm (1.5&quot;)</td>
<td>Average Thickness</td>
<td>N/A</td>
</tr>
<tr>
<td>.33-.60 mm (.013-.025&quot;)</td>
<td>Average Aspect Ratio</td>
<td>N/A</td>
</tr>
<tr>
<td>35-45</td>
<td>Specific Gravity</td>
<td>0.91</td>
</tr>
<tr>
<td>7.85</td>
<td>Modulus of Elasticity</td>
<td>500 ksi</td>
</tr>
<tr>
<td>29.0 x 10^6 @ 70° F (20° C)</td>
<td>Melting Point</td>
<td>320° F (160° C)</td>
</tr>
<tr>
<td>2760° F (1516° C)</td>
<td>Absorption</td>
<td>Nil</td>
</tr>
<tr>
<td>Nil</td>
<td></td>
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</tr>
</tbody>
</table>
How to Use

- Mixing— E-Z Mesh is added to the mixer after batching all other concrete products. The entire water soluble bag is added and mixed at least 5 minutes per the speeds as specified in ASTM C94 standard for ready-mixed concrete.
- Finishing— E-Z Mesh can be finished through conventional techniques. This includes: hand, vibratory and laser screeds.

Guidelines

- E-Z Mesh is a secondary reinforcement.
- E-Z Mesh is not a replacement for structural reinforcement.
- E-Z Mesh is not intended to reduce slab thickness nor increase joint spacing.

Always follow both the ACI and PCA specifications and guidelines.

Packaging

Standard E-Z Mesh is 24 net pounds (23 lbs. steel fibers and 1 lb. synthetic) packaged in a water soluble bag. Standard pallet quantities are 90 bags (or 2,160 pounds/pallet) shrink-wrapped in plastic. Note: keep all E-Z Mesh bags and pallets out of wet conditions.

References

- ASTM C1399 Average Residual Strength of Fiber Reinforced Concrete.
- ACI 304 Guide for Measuring, Mixing, Transporting and Placing Concrete.
- ACI 302.1R *Guide for Concrete Floor and Slab Construction.
- ACI 360R-92 *Design of Slabs on Ground.
- ACI 544-1R *Fiber Reinforced Concrete.
- UL Approvals for use as an alternative or in addition to welded wire fabric used in floor-ceiling D700, D800 and D900 series designs.