ARTICLE 121-2 is deleted and the following substituted:

121-2 Materials.
Meet the following requirements:
- Fine Aggregate(1) .................................................Section 902
- Portland Cement..................................................Section 921
- Water .................................................................Section 923
- Admixtures(2).......................................................Section 924
- Ground Tire Rubber (GTR)(3) .............................Section 919
- Supplementary Cementitious Materials .............Section 929
- Preformed Foam ........................................... ASTM C 869

1. Any clean fine aggregate with 100% passing a 3/8 inch mesh sieve and
not more than 15% passing a No. 200 sieve may be used.
2. High air generators or foaming agents may be used in lieu of
conventional air entraining admixtures and shall be added at jobsite and mixed in
accordance with the manufacturer’s recommendation. GTR may reduce the amount of
high air generators or foaming agents used.
3. GTR may replace up to 20% of the fine aggregate.

ARTICLE 121-3 is deleted and the following substituted:

121-3 Mix Design.
Conventional flowable fill is a mixture of portland cement, fly ash, fine aggregate,
admixture and water. Flowable fill contains a low cementitious content for reduced
strength development. Cellular concrete flowable fill is a low density concrete made with
cement, water and preformed foam to form a hardened closed cell foam material. Cellular
concrete flowable fill may also contain fine aggregate, supplementary cementitious
materials and admixtures.

Submit mix designs to the Engineer for approval. The following are suggested
mix guides for excavatable, non-excavatable and cellular concrete flowable fill:

<table>
<thead>
<tr>
<th></th>
<th>Excavatable</th>
<th>Non-Excavatable</th>
<th>Cellular Concrete</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cement</strong></td>
<td>75-100 lb/yd³</td>
<td>75-150 lb/yd³</td>
<td>Min 150 lb/yd³</td>
</tr>
<tr>
<td><strong>Supplementary Cementitious Materials</strong></td>
<td>None</td>
<td>150-600 lb/yd³</td>
<td>Optional</td>
</tr>
<tr>
<td><strong>Water</strong></td>
<td>*</td>
<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Air</strong></td>
<td>5-35%</td>
<td>5-15%</td>
<td>****</td>
</tr>
<tr>
<td><strong>28 Day Compressive Strength</strong></td>
<td>Maximum 100 psi</td>
<td>Minimum 125 psi</td>
<td>Minimum 80 psi</td>
</tr>
<tr>
<td><strong>Unit Weight</strong></td>
<td>90-110 lb/ft³</td>
<td>100-125 lb/ft³</td>
<td>20-80 lb/ft³</td>
</tr>
</tbody>
</table>
Excavatable | Non-Excavatable | Cellular Concrete
---|---|---
Fine Aggregate | *** | *** | Optional

*Mix designs shall produce a consistency that will result in a flowable self-leveling product at time of placement.
**The requirements for percent air, compressive strength and unit weight are for laboratory designs only and are not intended for jobsite acceptance requirements.
***Fine Aggregate shall be proportioned to yield 1 yd³.
****In cellular concrete, preformed foam shall be proportioned at the job site to yield 1 yd³ in accordance with the design requirements.