

PROPERTIES & GRADATIONS

Sample Mix Designs* *Material to Produce One Cubic Yard*

STANDARD MIXES

| Specified Compressive Strength | 3000 PSI | 4000 PSI | 5000 PSI |
|--|----------|----------|----------|
| Cement (lbs) | 564 | 658 | 752 |
| Fly Ash (Class F) (lbs) | 0 | 0 | 0 |
| STALITE 3/4" LWA (lbs - SSD) | 875 | 875 | 875 |
| Sand (lbs-SSD) | 1446 | 1357 | 1268 |
| Water (lbs) | 296 | 300 | 304 |
| <i>The mix water content assumes the use of a normal water-reducing admixture to produce a 3" to 5" slump range.</i> | | | |
| Design Air Content | 5 % | 5 % | 5 % |
| w/cm | 0.52 | 0.46 | 0.40 |
| Calculated Equilibrium Density (lbs/cf) | 111.9 | 112.8 | 113.7 |
| Calculated Fresh Density (lbs/cf) | 117.8 | 118.2 | 118.5 |

HIGH STRENGTH MIXES

| Specified Compressive Strength | 6000 PSI | 8000 PSI | 10000 PSI |
|---|----------|----------|-----------|
| Cement (lbs) | 705 | 799 | 893 |
| Fly Ash (Class F) (lbs) | 0 | 0 | 0 |
| Silica Fume (lbs) | 49 | 56 | 63 |
| STALITE 1/2" LWA (lbs - SSD) | 1000 | 1000 | 1000 |
| STALITE weights changed to achieve specific concrete densities. | | | |
| Sand (lbs-SSD) | 1247 | 1187 | 1128 |
| Water (lbs) | 280 | 270 | 260 |
| <i>The mix water content assumes the use of a high-range water-reducing admixture to produce the desired slump.</i> | | | |
| Design Air Content | 2 % | 2 % | 2 % |
| w/cm | 0.37 | 0.32 | 0.27 |
| Calculated Equilibrium Density (lbs/cf) | 117.4 | 119.7 | 112.0 |
| Calculated Fresh Density (lbs/cf) | 121.5 | 122.7 | 123.8 |

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Sample Mix Designs* *Material to Produce One Cubic Yard*

BRIDGE DECK MIXES

| Specified Compressive Strength | 4500 PSI | 4500 PSI |
|--|----------|----------|
| Cement (lbs) | 715 | 572 |
| Fly Ash (Class F) (lbs) | 0 | 172 |
| Silica Fume (LBS) | 0 | 0 |
| STALITE 1/2" LWA (lbs - SSD) | 900 | 900 |
| Sand (lbs-SSD) | 1235 | 1153 |
| Water (lbs) | 295 | 295 |
| <i>The mix water content assumes the use of a normal water-reducing admixture to produce an 8" to 10" slump range.</i> | | |
| Design Air Content | 6 % | 6 % |
| w/cm | 0.41 | 0.40 |
| Calculated Equilibrium Density (lbs/cf) | 111.7 | 110.0 |
| Calculated Equilibrium Density (lbs/cf) | 116.5 | 114.5 |

*These are sample mix designs and should be used as guidelines only.

CONTACT YOUR **STALITE** REPRESENTATIVE FOR SPECIFIC JOB MIXES AND INFORMATION.

**ASTM C567-SECTION 9.4 AND 9.5 .

PROPERTIES & GRADATIONS

Sample Metric Mix Designs* *Material to Produce One Cubic Meter*

STANDARD MIXES

| Specified Compressive Strength | 20 MPa | 30 MPa | 40 MPa |
|--|--------|--------|--------|
| Cement (kg) | 335 | 390 | 418 |
| Fly Ash (Class F) (kg) | 0 | 0 | 45 |
| STALITE 19mm LWA (kg - SSD) | 519 | 519 | 519 |
| Sand (kgs-SSD) | 864 | 810 | 768 |
| Water (kg) | 176 | 179 | 166 |
| <i>The mix water content assumes the use of a normal water-reducing admixture to produce a 10cm to 15cm slump range.</i> | | | |
| Design Air Content | 5 % | 5 % | 5 % |
| w/cm | 0.53 | 0.46 | 0.36 |
| Calculated Equilibrium Density (kg/m ³) | 1799 | 1812 | 1857 |
| Calculated Fresh Density (kg/m ³) | 1894 | 1898 | 1916 |

HIGH STRENGTH MIXES

| Specified Compressive Strength | 50 MPa | 60 MPa | 70 MPa |
|---|--------|--------|--------|
| Cement (kg) | 450 | 480 | 540 |
| Fly Ash (Class F) (kg) | 0 | 0 | 0 |
| Silica Fume (kg) | 31 | 34 | 38 |
| STALITE 12.5mm LWA (kg - SD) | 594 | 594 | 594 |
| STALITE weights changed to achieve specific concrete densities. | | | |
| Sand (kg-SSD) | 640 | 620 | 655 |
| Water (kg) | 163 | 160 | 156 |
| <i>The mix water content assumes the use of a high-range water-reducing admixture to produce the desired slump.</i> | | | |
| Design Air Content | 2 % | 2 % | 2 % |
| w/cm | 0.37 | 0.32 | 0.27 |
| Calculated Equilibrium Density (kg/m ³) | 117.4 | 119.7 | 112.0 |
| Calculated Fresh Density (kg/m ³) | 121.5 | 122.7 | 123.8 |

PROPERTIES & GRADATIONS

Sample Metric Mix Designs* *Material to Produce One Cubic Meter*

BRIDGE DECK MIXES

| Specified Compressive Strength | 55 MPa | 55 MPa |
|---|--------|--------|
| Cement (kg) | 474 | 410 |
| Fly Ash (Class F) (kg) | 0 | 85 |
| Silica Fume (kg) | 33 | 33 |
| STALITE 12.5mm LWA (kg - SSD) | 563 | 564 |
| STALITE weights changed to achieve specific concrete densities. | | |
| Sand (kg-SSD) | 653 | 606 |
| Water (kg) | 160 | 160 |
| <i>The mix water content assumes the use of a normal water-reducing admixture to produce a 8cm to 10cm slump range.</i> | | |
| Design Air Content | 6 % | 6 % |
| w/cm | 0.32 | 0.30 |
| Calculated Equilibrium Density (kg/m ³) | 1837 | 1817 |
| Calculated Fresh Density (kg/m ³) | 1883 | 1858 |

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**ASTM C567-SECTION 9.4 AND 9.5 .