

## Helix TSMR Even Distribution Tests – 25kg/m<sup>3</sup> dosage

The test procedure was carried out as follows:

- 3m<sup>3</sup> concrete mix with 75kg of Helix (ie 25kg/m<sup>3</sup>) added at the batch plan. This concrete mix was a self-compacting mix with a slump 160mm +.
- During the pour, three concrete cylinder samples were kept – one at the beginning, middle and end of the pour.
- Cylinders are 100mm in diameter and 200mm deep which equates to 0.00157m<sup>3</sup> in volume
- Cylinders were then washed out with only the aggregate and the Helix remaining in the tray.
- Using a magnet, the Helix was collected and weighed accordingly
- The following three results were documented:
  - 40.1 grams = 0.0401kg
  - 41.0 grams = 0.0410kg
  - 40.7 grams = 0.0407kg
- When divided by 0.00157m<sup>3</sup> this equates to a dosage of helix equalling
  - 25.6kg/m<sup>3</sup> of Helix
  - 26.1kg/m<sup>3</sup> of Helix
  - 25.9kg/m<sup>3</sup> of Helix
- This averages out to 25.9kg/m<sup>3</sup> of Helix which is within the +-5% tolerance
- Helix has successfully proven that when mixed in the concrete truck it evenly disperses in the mix allowing for an accurate design and structural behaviour.



*Concrete poured in cylinder*



*Concrete tipped in tray*



*Concrete tipped in tray*



*Concrete hosed down*



*Aggregate and Helix TSMR remain and tipped into tray and Helix TSMR removed with magnet*



*Helix TSMR weighed on scale. Total weight = 41.0*

