Helix Data Sheet

**Description:**
Helix is filaments of wire, twisted and cut to length, for reinforcement of concrete, mortar and other composite materials. Helix 5-25 is cold drawn wire twisted in single pieces.

**Applications:**
- Structural Walls
- Structural Floors
- Foundations
- Beams/Columns
- Shotcrete
- Paving
- Precast
- Rebar Replacement

**Geometry:**
Length: 25 mm (1.00 in)
Diameter: 0.50 mm (0.02 in)
25,307 fibers/kg (11,500 fibers/lb)

**Tensile Strength:**
Tensile Strength: 246.5 ksi minimum
(1700 Mpa minimum)
Material: High Carbon Steel Wire

**Coating:**
Coating: Electroplated Zinc

**Approvals:**
Uniform ES Evaluation Report 0279
www.helixsteel.com/technical
www.iapmoes.org

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**Dosing - Mixing**

**Helix Dosing Instructions**
Mixing should be done accordance with ASTM C94 and the mixing instructions below. The dosages of Helix added to the mix should be noted on the batch documentation in accordance with Uniform Evaluation Service ER 279 Section 5.15. Verified using procedure in ER 279 Appendix A.

**Mixing Instructions**
Mixing Procedure for Ready Mix Plants (wet or dry) - PREFERRED
To prevent Helix from clumping (small cluster of Helix) rigorously follow the procedures below:
- Dump all of the Helix into the truck drum at once, no need to slowly shake.
- Add a minimum of 20% of the mix water into the drum, with the drum turning at charging speed.
- Turn truck drum at charging speed for six minutes (as the clumps fall over the mixing fins they are broken up into 2D layers, with water acting as a lubricant).
- Add the sand, aggregate and cement (or concrete) in the normal manner.
- Mix an additional 6 minutes to ensure the Helix is completely disbursed throughout the concrete.

Site Batching Ready Mix Trucks (Loaded Truck at Construction Site)
- Set the drum to charging speed.
- Use Helix Dosing Unit (contact Helix to order). The dosing unit breaks up clumps and ensures Helix goes into the truck at a controlled rate (about 1 box per minute). When Helix is added at this stage, it must enter the mixer clump free, ensuring no clumps larger than 2” enter the mixer.
- When adding Helix, it may collect on any residual concrete on the interior surfaces of the hopper. Push the Helix into the drum avoiding clumps. Adding a slippery lining, such as PVC sheeting, to the hopper may help avoid these buildups.
- Mix at charging speed for 5 minutes (60 revolutions) after Helix is added.

Pan Mixer/Drum Mixer
- Set the mixer to the proper speed.
- Add Helix at a rate of 45-60 seconds per 45 lbs (20 kgs).
- Helix should be added with the aggregates.
- Mix at max speed for 5 minutes after Helix is added.

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**Recommendations - Storage**

Do not Stack Pallets on top of each other.
Protect pallets against rain. Wrapping Available.

Delivered In:
- Box: 20.4 kgs or 45 lbs
- Pallet: 735 kgs or 1620 lbs
- Big Bag: 1000 kgs or 2205 lbs

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Polytorx, LLC * 300 N. Fifth Avenue, Suite 130
Ann Arbor, MI 48104
PH: 734-322-2114 * FX: 734-786-1633
www.helixsteel.com