Reinforced Concrete Pipes 2.0

Pilot partnerships & technology licensing

A New Pipe Technology Seeking Pilot Partners & Licensees

Our composite-wrapped concrete pipe eliminates embedded steel, delivers exceptional structural performance and a fully sealed exterior, and is suitable for drainage, pressure, and sewer applications. We are currently selecting a small number of organizations for **pilot installations** and **technology licensing**.

BENEFITS

Why This Technology Matters

Steel-free performance

Externally applied composite confinement replaces the traditional steel cage, unlocking higher load capacity and larger safe deflections.

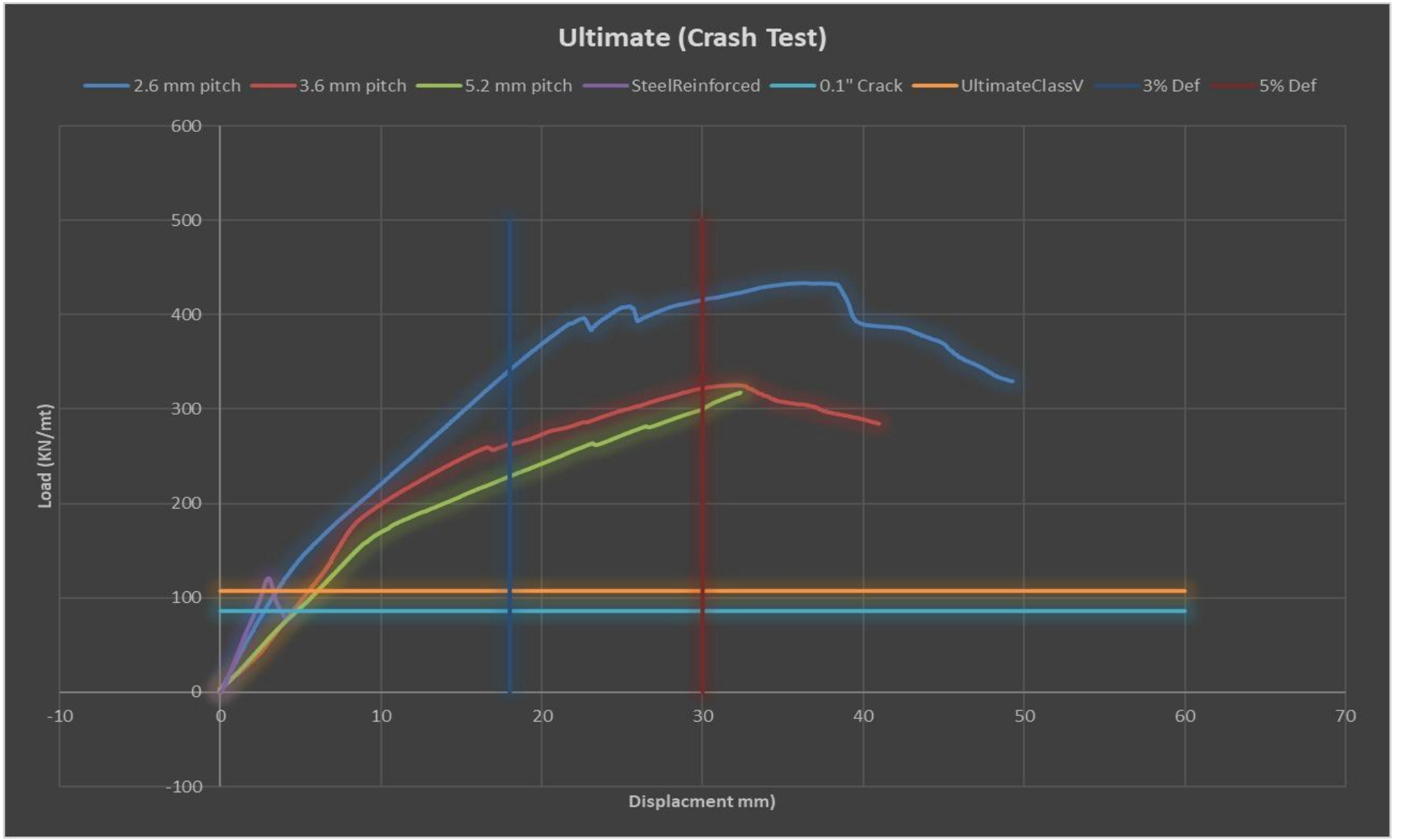
Pressure & deep-burial ready

A continuous external water barrier enables use in pressure lines, deep sewers, and high-groundwater environments.

Lower material intensity

No steel means simplified production and zero corrosion risk—supporting long term durability, reduced cost-optimized manufacturing.

PERFORMANCE



We are wrapping the pipe with tensioned FRP that places the pipe in post compression that increases the load capacity in both beam and axial loading at a lower cost

Non-brittle ultimate behavior: tests confirm that the composite-wrapped pipe reaches final load without brittle failure. Even at extreme displacement, the pipe does not fracture apart — the composite confinement keeps the structure together, preventing sudden loss of capacity and providing a ductile, controlled failure mode.

FLEXURAL TEST

Flexural Capacity Demonstration

Full-scale bending tests show increased flexural stiffness and post-crack performance versus traditional reinforced concrete. The system maintains structural continuity after micro-cracking, improving resilience during handling, installation, and service.

https://youtu.be/zJqzcOJf3LU

WATERPROFING

Completely Sealed Exterior

- The Composite wrap forms a continuous external water barrier, preventing infiltration/exfiltration even below the phreatic line.
- Prevents water pressure buildup between the concrete and polymeric liners, ensuring permanent bonding in deep-burial condition.

Outcomes

- Leak-tight performance over service life
- Corrosion-immune reinforcement
- Fewer constraints in wet soils
- Final load reached without brittle failure- the pipe stays together at ultimate.

BELL REINFORCEMENT

Reinforcement Bell Zone

Applying composite reinforcement to the bell increases tensile capacity and compression control at the joint—enabling higher gasket compression and reducing bell-crack risk under pressure or vacuum.

Joint Performance

- Higher allowable internal pressure
- Reduced leakage under vacuum or external head
- Improved robustness during handling & installation

Technical Snapshot

Reinforcement Externally applied, tensioned composite wrap	**Structural behavior** High deformation tolerance;>5% before failure (3-edge bearing)	**Waterproofing** Continuous external barrier; impermeable exterior
Jointing Composite-reinforced bell; high gasket compression	**Applications** Pressure pipelines, deep sewers, high groundwater, drainage, micro-tunneling	**Manufacturing model** Technology licensable to regional producers

Pilot Projects & Technology Licensing

Commercializing product sales currently. We are selecting a limited number of partners for pilot installations and offering licensing to qualified producers.

- **Engineering & Construction firms**
- **Infrastructure owners**
- **Concrete pipe producers**

Interested in Pilots or Licensing?

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