

► STRUCTURED WALL PIPES

Brussels. Now that the European Standard for Structured Wall Sewer Pipes & Fittings has been approved, what next?

Zoran Davidovski from Pipelife has been following the progress of EN 13476. "It took about twenty years to develop this standard and would have taken another twenty had TEPPFA not taken the initiative. After two years of reasonable reduction without reduction of reason, we got there!"

Highlights are:

- Ring Stiffness of Pipes and Fittings and Available Classes
- Required Ring Flexibility of Pipes
- Dimensions and Tolerances
- Impact Strength, Resistance to Dynamic Loading
- Demonstration of Leak Tightness of the System
- Resistance to High Temperatures
- Recommendation for Sewer Pipe Cleaning, Jetting
- Demonstration of the Durability of the Used Thermoplastic Materials
- Chemical Resistance of the Used Thermoplastic Materials
- Additional Information: Recycling of Thermoplastic Pipes and Fittings



Zoran Davidovski

Plastic structured wall pipes and fittings have been used in Europe for over thirty years. As their name suggests, these pipes are differentiated by a pipe wall that has a structured external profile or are composed of different layers to give an improved performance and to meet the stringent requirements of a drainage and sewer system.

PVC structured wall pipes were introduced in the 1970's. Their lightweight, compared to traditional materials, toughness and excellent resistance to chemicals make them particularly suitable for sewer applications. More recently, structured wall pipes and fittings made from Polypropylene (PP) and Polyethylene (PE) have been introduced.

Zoran notes that a fair amount of testing has been included in the standard. "Quality options were also considered. These pipes are required to operate in Mediterranean as well as Scandinavian environments. Testing had to reflect this divergence."

"Some fundamental testing for ring stiffness and flexibility is clearly

welcomed. The European industry would be clearly concerned if sub standard imports from outside of Europe flooded our markets.

“Testing for leak tightness is also a critical parameter. Joints have to be tested under extreme conditions including joint angular and diametric deflection ranging from negative to positive. For underground drainage and sewer pipe systems this is a fundamental characteristic.”

“We also considered flushing and were thus able to bring the standard completely up to date with recommendations for high volume low pressure jetting with the correct size of bore nozzles.”

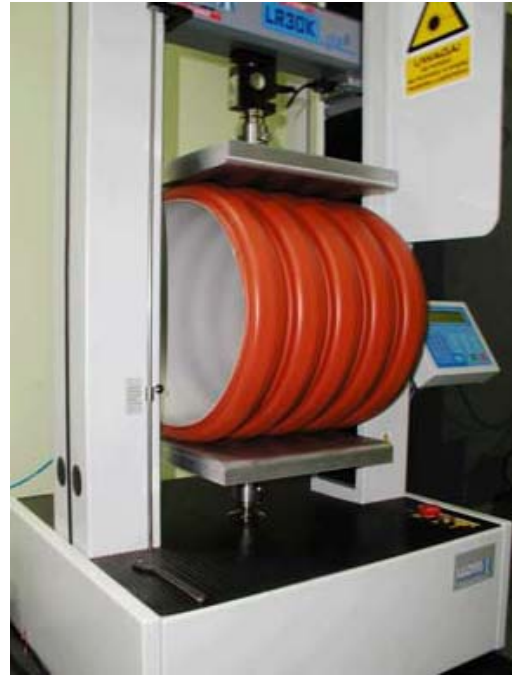
Level playing field

Even with about 40 basic types of structured wall pipe systems on the market, Zoran is satisfied that customers will be reassured by the EN marking. “This performance based standard will also assist Central Eastern European markets which tend to look to EN for guidance. We now have a level playing field and whereas publishing the standard will not lead immediately to enormous sales growth of plastic pipes, it should provide basic reassurance about where the products are coming from and how they will perform underground.”

The Standard was published by CEN in April this year and this will be followed in the UK, for example, by BS EN 13476 and in France by Afnor EN 13476.



Leak tightness test



Compression testing machine for ring stiffness

The issue of the variety of types of pipe structure has been solved by enabling member countries to develop their own national foreword text to the Standard. Each Member State will offer a Third Party Certification scheme for their products.

“The growing market share of plastic pipe systems in Europe is partly the result of continuous innovation, resulting in more effective and efficient concepts. These concepts, like structured wall pipes, can only be successful when serving the basic customer need: **quality**. Standards have now been set and we are confident that performance will endure.”

TEPPFA has issued a document for guidance on the standard entitled:

Structured Wall Piping Systems according to EN13476

This is available on request from tiem.meijering@teppfa.org