

SAPPMA ENSURES QUALITY OF PIPES USED TO PROVIDE DRINKING WATER

Johannesburg, 15 April 2019. The Southern African Plastic Pipe Manufacturers Association (SAPPMA) has made concerted efforts in recent months to ensure its members manufacture thermoplastic pipes that do not leach contaminants nor is in any way harmful to the consumer, and that they are trained in international best practices to ensure quality of drinking water.

Ensuring consumer confidence

“It is SAPPMA’s mandate to ensure unquestionable confidence and trust in the quality of pipes that are manufactured by our members,” explains Jan Venter, CEO of SAPPMA. “For this reason, we take our job very seriously to ensure that the HDPE and PVC pipes produced by our members and bearing the SAPPMA mark, provide drinking to communities around the country without any health concerns”.

According to Venter, one of SAPPMA’s biggest battles that it is consistently fighting, is against the use of recycled material. Although both HDPE and PVC pipes are highly recyclable when they have reached the end of their lifecycle, SAPPMA members are strictly forbidden according to the association’s Membership Code of Conduct to use externally sourced recycled content during their manufacturing process.

“Most of the recycled material used by non-SAPPMA members could be of suspicious origin. Apart from the usual negative effects on pipe quality, there is also the potential danger of detrimental health effects, through the leaching of bad substances into potable water,” Venter adds.

No microplastics due to abrasion

SAPPMA allayed fears and refuted rumours that plastic pipes could possibly be the cause of microbead pollution in drinking water. “Regardless of its makeup, water is not considered abrasive to thermoplastic pipe. The inner surface of drinking PVC pipe remains smooth and unaltered over the entire pipe’s lifecycle. This has been confirmed by measurements of the pressure losses in PVC pipelines which do not increase with time,” Venter said.

Whilst hard waters can create some lime scale inside drinking water pipes, Venter stressed that thermoplastic pipes are resistant to the chemical treatments used to remove lime scale and restore initial smooth pipe condition. This statement was confirmed by Plastics Europe’s Manager of Technical and Environmental Affairs, Arjen Sevenster, who said that there is zero probability that microplastics are generated during transport of drinking water.

“Although storm drain and sewer effluent usually contain grit or other hard suspended solids which constantly strikes against the interior surface of the drainage and sewer pipes, thermoplastic pipes have an excellent resistance to abrasion compared to concrete, vitrified clay and GRP, which results in a significant increase in service life,” Sevenster reported.

Adopting international quality standards for drinking water

Because consumer health and safety is such an important focus area for SAPPMA, the body has adopted NSF's internationally recognised ANSI 61 standard for health effects of components, including piping systems.

"We have recently welcomed NSF International, an American product testing, inspection and certification organization, as a member of SAPPMA. This afforded us the ideal opportunity to educate our members about international quality standards for drinking water," Venter explained.

A workshop, entitled '*Quality for a safer future, understanding NSF ANSI 61*' was presented by executives from NSF International, during which this standard and its importance for the plastic piping industry and every aspect of a water reticulation system where a plastic component comes into contact with potable water, was explained.

"Manufacturing, selling, or distributing plastic products internationally requires compliance with international standards, and NSF ANSI 61: Drinking Water System Components Health Effects, is recognised by most government agencies in the regulation of drinking water supplies for companies aiming to achieve global competitiveness. The standard, developed by a team of scientists, industry experts, and key industry stakeholders, sets health effects criteria for many water system components and has now been recognised and adopted in many countries around the world," said Christian Kurdy, Managing Director for the Middle East and Africa.

Kurdy added that the NSF ANSI 61 Standard establishes minimum health effects requirements for the chemical contaminants and impurities that are indirectly imparted to drinking water from products, components, and materials used in drinking water systems. It covers specific materials or products that come into contact with drinking water, drinking water treatment chemicals, or both. It also determines what contaminants may migrate or leach from products into drinking water and if they are below the maximum levels allowed to be considered safe.

The products and materials covered include, but are not limited to, process media (e.g., carbon, sand), protective materials (e.g., coatings, linings, liners), joining and sealing materials (e.g., solvent cements, welding materials, gaskets), pipes and related products (e.g., pipes, tanks, fittings), mechanical devices used in treatment/ transmission/distribution systems (e.g., valves, chlorinators, separation membranes, point-of-entry drinking water treatment systems), and mechanical plumbing devices (e.g., faucets, endpoint control valves).

Concluded Venter: "As an industry it is important for us to continue our engagement with NSF and we strongly encourage our members to obtain NSF61 certification. Not only will this create yet another opportunity for SAPPMA to differentiate itself, but we also believe that it will provide customers the added assurance that the plastic pipe does not leach harmful contaminants into drinking water sources".

For more information, visit www.sappma.co.za

ENDS

Notes to the editor:

1. The abrasion resistance of PVC pipes is closely monitored by the standard Darmstadt test (EN295-3). In this test, a semi-circular pipe section containing a sand/gravel/water mixture is repeatedly and alternately tilted in a test jig for a specific number of cycles. The average abrasion depth a_m is measured as function of the number of oscillating cycles. Sewer pipes manufactured according to the EN 1401 standard are considered abrasion resistant ($a_m < 0.25$ mm after 100000 tilting cycles in a EN295-3 test). Typical tests results comparing different materials at different oscillating cycles are available from the [KRV website](#).
2. NSF International was established in 1944 is recognised globally as an independent certification organisation. The company has 45 business unit sectors that deal with testing and certification across multiple industries and offers testing, inspection, certification, training, consulting, standard development, and applied research services. Manufacturing, selling, or distributing plastic products internationally, requires compliance with international standards, and NSF ANSI 61: Drinking Water System Components Health Effects, is recognised by most government agencies in the regulation of drinking water supplies for companies aiming to achieve global competitiveness. The standard, developed by a team of scientists, industry experts, and key industry stakeholders, sets health effects criteria for many water system components and has now been recognised and adopted in many countries around the world.
3. **Caption for photograph below** (fltr) Vincent Boks (NSF Senior Business Development Manager: Europe, Middle East and Africa), Tarik Bellahcene (NSF Managing Director: Europe, Middle East and Africa) and Christian Kurdy (NSF: Managing Director Middle East and Africa) presented to SAPPMA members on NSF's ANSI 61 standard for Water Quality in Midrand recently.

