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PPN- The Leading Source of Industry News on Polymer Pipes and Plastic Pipe Testing

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Push to Ban All Plastic Pipes Below PN16 From Hot Water Applications in Australia (Breaking News)

In the new draft of AS3500.4 at clause 2.5.2 (h) a clause has been stating that hot water piping must have a minimum PN16 rating.

"The minimum pressure rating for plastic pipes used in a heated water service is PN 16"

PPN and many of the PEX pipe manufacturers see absolutely no reason to include this new clause.

<http://cloud.excelplas.com/s/XgSrq3NZWbAWpX6#pdfviewer>

New Draft of AS3500.4 2020 Out for Public Comment - Closing 28th August 2020

<http://cloud.excelplas.com/s/XgSrq3NZWbAWpX6#pdfviewer>

Objection to Suggested Inclusion of Clause 2.5.2.(h) of New Draft of AS3500.4 – Design Restriction of PN16 Rating

The inclusion of 2.5.2 (h) appears an attempt to exclude certain brands of product that are popular in the Australian market, which are rated PN12.5 and have been successfully used in Australia in hot water applications for more than 10 years. The use of PN12.5 rating PEX piping products is prolific in hot water applications and includes some of the largest towers in

Australia. There is already a requirement in clause 2.4.1 that Pipes and fittings up to and including DN 100, shall have a maximum allowable operating pressure of at least 1.0MPa at 60 deg C. Some PEX piping products of PN12.5 rating have been independently shown to meet this requirement. The inclusion of clause 2.5.2 (h) is totally unwarranted given that 2.4.1 already exists. In addition PN12.5 rated PEX pipes have been successfully used in Australia for more than a decade and there is simply no justification for the inclusion of this additional clause. PPN and various PEX manufacturers strongly object to the inclusion of this clause.

Summary of Substantive Changes of AWWA PEX Piping Standard (Declassified)

<https://www.iapmo.org/media/22419/summary-of-changes-awwa-c904-2006-2016.pdf>

Erosion Study on Brass Insert Fittings Used in PEX Piping Systems (PPI)

<https://plasticpipe.org/pdf/tn-26-erosion-study-brass-inserts-to-pex.pdf>

HeatLink Publishes Technical Bulletin on New PEX Piping with Special Additives to Inhibit Thermal and UV Oxidation

<https://www.heatlink.com/sites/default/files/Info-20Sheet/L2305-INFO-5-PEX-Tubing-Technical-Information.pdf>

Updated GasPEX Pipe Installation and Training Manual Recently Published

https://coutagroup.com.au/wp-content/uploads/2020/03/6_2018-GasPex_Install-Manual_E02.pdf

DuoPEX Water Manual Recently Published

<https://www.auspex.com.au/assets/manuals/DuopexWaterManualEdition22020web.pdf>

ASTM Publishes New Standard for for Metal Insert Fittings Utilizing a Copper Crimp Ring, or Alternate Stainless Steel Clamps, for SDR9 Cross-linked Polyethylene (PEX) Tubing and SDR9 Polyethylene of Raised Temperature (PE-RT) Tubing

https://www.techstreet.com/standards/astm-f1807-19b?product_id=2093914

RWC Publishes Trade Price Guide for PEX Piping and Fittings

https://www.rmc.com.au/rmc/wp-content/uploads/2019/12/SB_PF_PriceGuide_1219_INT.pdf

Giacomini Publishes Technical Bulletin on PEX-Al-PEX Multilayer Pipes

https://static.giacomini.com/giacomini.com/catalog/technical_documentation/R999.pdf

Relative Oxidative Aggressiveness of Chloramines and Free Chlorine Disinfectants on Crosslinked Polyethylene (PEX) Pipes used in Treated Potable Water

<https://plasticpipe.org/pdf/statement-a-pex-chloramines.pdf>

ExcelPlas Labs Pipe Failure Investigations

ExcelPlas Labs have created a new benchmark in failure analysis of HDPE, PP-R, PB and PEX pipes in addition to PVC & CPVC pipes as well as composite GRP and GRE pipes. When a plastic pipeline fails to perform as intended, our team can determine the root cause of failure (e.g. oxidative failure, chemical failure, creep failure, over-stress failure, fatigue failure, design failure, etc). ExcelPlas are experienced with all plastic piping failure modes and mechanisms including Slow Crack Growth (SCG) Rapid Crack Propagation (RCP), Environmental Stress Crack Resistance (ESCR), Oxidative Stress Cracking (OSC), cyclic fatigue, manufacturing defects, and polymer material problems.

<http://www.excelplas.com/>

ExcelPlas Strain Hardening Test (SHT) for HDPE Pipes

The SHT in accordance with ISO 18488 is a relatively new, but excellent way to obtain a rapid indication of the Stress Crack Growth (SCG) resistance of your piping material. This tensile test performed at 80°C has become in just a few years the new standard for Batch Release Testing (BRT). And not without reason. The test requires only a very small amount of material, the results are very reliable with a very low inter-laboratory scatter and the results are available within a few days, regardless of the PE grade. The SHT is usually performed on resin material but it can also be performed on samples taken directly from pipes or sheets. As accredited lab, EXCELPLAS is happy to discuss the possibilities with you, whether it is for BRT, benchmarking, quality control of your (high performing) PE grade or for polymer compliance/ validation.

<http://www.excelplas.com/>

Australian Plastic Pipe Testing Laboratory

ExcelPlas Laboratories provides a comprehensive plastic pipe joint testing service and is equipped with a state of the art laboratory to test a range of polymer materials including polyethylene and polypropylene. ExcelPlas can carry out testing on plastic tube and pipe ranging in wall thickness from 3 mm to 80 mm. ExcelPlas Laboratories provide a comprehensive service to Industrial & commercial companies, environmental consultants, Government bodies and local Authority customers throughout Australia & NZ. All testing is carried and out in accordance with ISO & ASTM methods and is fully accredited to ISO 17025 by NATA.

<http://www.excelplas.com/>

Australia's Plastic Pipe Testing Laboratory

ExcelPlas Laboratories provides a comprehensive plastic pipe joint testing service and is equipped with a state of the art laboratory to test a range of polymer materials including polyethylene and polypropylene. ExcelPlas can carry out testing on plastic tube and pipe ranging in wall thickness from 20mm to 1200mm. ExcelPlas Laboratories provide a comprehensive service to Industrial & commercial companies, environmental consultants, Government bodies and local Authority customers throughout Australia and Asia. All testing is carried and out in accordance with ASTM, ISO & WIS methods and is fully accredited to ISO 17025 by NATA.

- Butt Fusion Weld Testing
- Weld Testing
- Testing of Electro-fusion Welds
- Tear on saddle joints
- Crush De-cohesion of Electro-fusion welds
- Polymer & Plastics Identification
- Chemical & Thermal Testing
- Site Audits

<http://www.excelplas.com/>

ExcelPlas - the Australian Pipes & Fittings Testing Laboratory

- Accredited to ISO 17025 by the National Association of Testing Authorities (NATA) Australia, and is Australia's largest laboratory dedicated for the testing of plastic pipes and fittings to various Standards which include Australian, European and International Standards.
- The staff employed at the laboratory have a combined experience of more than 85 years within the plastics industry specifically with manufacturing, quality control and the research and development of plastic piping systems including HDPE, PEX, PP-R, PVC, U-PVC, M-PVC, O-PVC, ABS, GRP, GRE and PB.
- Services provided include conformance testing, compliance testing, batch release

testing, root cause analysis for field failures and non-destructive testing of samples.

- <http://www.excelplas.com/>

ExcelPlas Lab Specialising in HDPE Pipe Condition Monitoring, Failure Analysis and Testing

In the event of a HDPE butt weld or electrofusion weld failing during initial testing, or in service, we can conduct investigations to assist in identifying the root cause of the failure.

This service also extends to the premature failure of the pipe or fitting itself.

<http://www.excelplas.com/plastic-pipes>

ExcelPlas Pipe Testing is a Leader in the Field of Polyethylene (PE) and High-Density Polyethylene (HDPE) Testing

ExcelPlas is accredited with the National Association of Testing Authorities (NATA) for butt weld tests, bend and tensile tests, peel decohesion tests on electro fusion sockets and failure mode determination

<http://www.polypipetesting.com.au/butt-fusion-welds/>

New UHMWPE Pipe for Tailing Offers Greater Than 4X the Abrasion Resistance of PE100 (Australia wide)

<http://slurrypipes.com.au/>

ExcelPlas Poly Pipe Weld Inspection Lists Top 7 Causes of Weld Failure:

- Lack of scraping
- Inaccurate scraping
- Contamination from dirt, water, oil or clays
- Lack of Paralell-ness of fusion faces
- Misalignment of surfaces
- Time, temperature and pressure deviations
- Not adhering to cool times

We have extensive experience in inspection of poly pipe welds for assuring welded joint quality. Direct Poly Pipe Inspection ensures that operators are following the proven welding procedure; this reduces the occurrences of operational errors which lead to defects such as inclusions, lack of fusion (LoF), porosity and misalignment.

More information, contact john@excelplas.com

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<https://www.polypipenews.com.au/advertise/>

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Poly Pipe News is now sent to over 4500 Poly Pipe Industry Members every week.

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