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

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NEWSMAKERS: * ABCB * Aquatherm * ExcelPlas * Fletcher Building * Iplex * McElroy * PP-R Failures * Standards Australia

Standards Australia Unwarranted Push to Ban All Plastic Pipes Below PN16 From Hot Water Applications in Australia and New Zealand (Breaking News)
In the new draft of AS3500.4, recently released for Public Comment, a new clause 2.5.2 (h) has been quietly added that requires ALL hot water piping to have a minimum PN16 rating. The current AS3500 Standard already dictates that piping must meet an operating pressure of 1.0MPa at 60 deg C. Long standing PN12.5 rated polymer pipes meet this requirement and have performed without fail for more than a decade both in Australia and New Zealand. PPN and many of the PEX pipe manufacturers see absolutely no reason to include this new clause.
https://consultation.abcb.gov.au/engagement/b8393f82/

New Drafts of AS3500 Part 1 through 4 Now Available for Public Comment - Closing 28th August 2020 - HAVE YOUR SAY!
Significant changes to add PN ratings in Part 1 and Part 4 of the draft AS3500 series will restrict the number of complying products in the market place – even though existing products work well and have no reported failures in use over many years! Have your say at:
https://consultation.abcb.gov.au/engagement/2e613851/

Widespread Objection to Suggested Inclusion of Clause 2.5.2.(h) of New Draft of

AS3500.4 – Design Restriction of PN16 Rating (Breaking News)
The inclusion of 2.5.2 (h) appears an attempt to exclude certain brands of product that are popular in the Australian market, are rated PN12.5 and have been successfully used in Australia and New Zealand in heated water applications for more than 10 years. PN ratings are a very generic plumbing term used to describe a class of product. The use of PN12.5 rating PEX piping products is prolific in heated water applications in Australia. The existing AS3500 Standard has 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. PEX piping products of PN12.5 rating have been independently shown to meet this requirement. The discrete inclusion of clause 2.5.2 (h) in the New Draft of AS3500.4 is totally unwarranted given that clause 2.4.1 already exists and PN12.5 products meet the requirement and have found to be very suitable over many years of use. PPN and various PEX manufacturers strongly object to the inclusion of this clause.
https://consultation.abcb.gov.au/engagement/b8393f82/consultation/download

Iplex Parent - Fletcher Workers Got 95% Pay Rise, Board Members 200%... Is That Fair?
https://www.stuff.co.nz/business/opinion-analysis/300046435/fletcher-workers-got-95-pay-rise-board-members-200-is-that-fair

Future Looking Brighter for Iplex Parent Fletcher Building, Just One Year After Predicting $1 Billion Loss
https://www.tvnz.co.nz/one-news/new-zealand/future-looking-brighter-fletcher-building-just-one-year-after-predicting-1-billion-loss

PPN Now Reaching Over 10,000 Readers in the Plastic Pipe Industry Worldwide (Free Subscriptions)
https://www.polypipenews.com.au/

Fusion of Family and Business – McElroy Is Built on Finding a Better Way for Welding HDPE Pipes
https://trenchlesstechnology.com/fusion-of-family-and-business-mcelroy-is-built-on-finding-a-better-way/

Court Decision Reached on Aquatherm PP-R Hot Water Piping Failures at Towers in Hammond, Indiana
https://www.leagle.com/decision/ininco20200121213

Effect of Loading Rate and Pipe Wall Thickness on the Strength and Toughness of Welded and Unwelded Polyethylene Pipes
https://asmedigitalcollection.asme.org/pressurevesseltech/article-abstract/doi/10.1115/1.4047444/1084336

Chinese Develop New Novel Pipe Resin Based on Reactor Alloy of Polypropylene and Polybutylene
http://www.cjps.org/article/app/id/25fe804e-ccc7-48c3-b279-4630d26abbcb/relative?pageType=en

Inspection: 30-year-old Glass-Reinforced Polymer Pipeline Stands Test of Time
https://www.compositesworld.com/articles/inspection-30-year-old-fiberglass-pipeline-stands-test-of-time

India Now Producing 3000 mm Diameter GRP Pipe – by EPP
https://basalt.today/2018/10/21267/

Transient Wave Analysis for the Viscoelastic Parameters Identification and Leak Detection in Water-filled Plastic Pipes
https://www.sciencedirect.com/science/article/pii/S0888327020304428

The Role of Expanded Polystyrene and Geocell in Enhancing the Behavior of Buried HDPE Pipes under Trench Loading Using Numerical Analyses
https://www.mdpi.com/2076-3263/10/7/251/pdf

Models to Investigate the Environmental Effects on Pipe Failure in Clean Water Networks
https://www.nature.com/articles/s41545-020-0077-3

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 buttweld 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

Get Your HDPE Pipe Products or Services Noticed – Advertise in Poly Pipe News (PPN) Australia
https://www.polypipenews.com.au/advertise/

This Newsletter is brought to you by Excelplas Labs, Australia's Largest group of Poly Pipe Testing Labs.

Pipe Poly News (PPN) is now Australia's most current and comprehensive source of news on Polyethylene pipes and Poly Pipe Welding;

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

Any news requests should be sent to john@excelplas.com
To subscribe, visit https://www.polypipenews.com.au/subscribe/

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