

## December 2018 Vol. 2

Author : PPN

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

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**ExcelPlas Labs Wishes All Our Customers, Suppliers and PPN Subscribers a Safe & Enjoyable Break???**

New Product - Steel-Reinforced Polyethylene Pipe

<https://www.wwdmag.com/pipe-polyethylene/srpe-pipe-can-be-used-variety-applications>

Exova Report on Fire Resistance of Various Plastic Pipes Penetrations (Classified)

[https://www.hilti.com.au/medias/sys\\_master/documents/h0e/hce/9323506270238/Approval-document-ASSET-DOC-LOC-3346541.pdf](https://www.hilti.com.au/medias/sys_master/documents/h0e/hce/9323506270238/Approval-document-ASSET-DOC-LOC-3346541.pdf)

Modernization of Polyethylene Pipelines for Expanding Application in Gas Transportation Systems

<http://iopscience.iop.org/article/10.1088/1755-1315/194/7/072009/pdf>

Tasmanian Projects Seeking HDPE Pipelines

<https://www.ccc.tas.gov.au/wp-content/uploads/2018/11/D-2018455-Water-Reuse-Pipeline-Utilities-Advertising-period-expires-17-December-2018.pdf>

Canberra Hospital Operating theatres Shut Down to Upgrade Plastics pipes which have had Issues with Deterioration

<https://www.canberratimes.com.au/politics/act/canberra-hospital-operating-theatre-was-closed-down-due-to-mould-20181116-p50gkr.html>

Basics for Fatigue Analysis of Piping System using Caesar II

<http://www.whatispiping.com/basics-fatigue-analysis>

<http://www.whatispiping.com/method-of-fatigue-analysis>

Uponor Report on New Crosslinked (PEX) Pipes From Sustainable Resources

<https://cloud.excelplas.com/index.php/s/9EuED8PFRpAYAVI>

Designing and Sizing with PEX Pipe (Special Feature)

<https://www.plumbermag.com/how-to-articles/commercial-pex-plumbing-uponor/designing-and-sizing-with-pex-pipe>

The Contractor's Checklist for Installing Commercial PEX Systems (Special Feature)

<https://www.plumbermag.com/how-to-articles/pex-plumbing-fittings-commercial/the-contractors->

[checklist-for-installing-commercial-pex-systems](#)

New Study On Durability of PEX Pipes For Hot Water Application

<https://cloud.excelplas.com/index.php/s/aOa77rfriY3EiLk/download>

Manufacture of New Thermoplastic Cross-linked Polyethylene (TPEX) Pipes

<https://cloud.excelplas.com/index.php/s/a8guT16VMoQ79R8/download>

### **Is Your PEX Pipe a Quality Product? Get it Tested!**

With PEX Pipe it is critical that there is consistent and uniform crosslinking throughout the entire pipe wall during the manufacturing process since this improves performance properties such as optimal thermal memory, elasticity, elevated temperature strength, chemical resistance, environmental-stress-crack resistance, slow-crack-growth resistance, and abrasion resistance.

ExcelPlas can test the degree of cross linking through the wall thickness of the pipe.

Despite the flexibility of PEX piping and being highly resistant to breakage it can undergo brittle cracking in service due to exhausted antioxidant reserves. PEX piping is an easy-to-install alternative to copper pipe however quality assurance checks should be done on PEX pipe particularly that imported from Asia. ExcelPlas Labs use a range of analytical techniques to assist all stakeholders (Building Owners, Facility Management, Body Corporate, Insurance companies, Plumbers and Hydraulics Engineers) to better understand the composition, quality and durability of imported PEX piping. Our fully trained professional staff can conduct in-situ sampling on site and sampling of provided reference pipes (from spare rolls or off-cuts). Contact ExcelPlas Labs to assess the quality of PEX piping.

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

Study on Simulation of Melting in Electrofusion Joints for Gas Pipelines

<https://arc.aiaa.org/doi/abs/10.2514/1.T5507?journalCode=jtht>

Make Some Noise for Acoustic Pipework Course From Rehau

[http://modbs.co.uk/news/fullstory.php/aid/18333/Make\\_some\\_noise\\_for\\_acoustic\\_pipework\\_course\\_from\\_Rehau.html](http://modbs.co.uk/news/fullstory.php/aid/18333/Make_some_noise_for_acoustic_pipework_course_from_Rehau.html)

Australian Pipe Welding company Servicing Nth QLD and PNG

DSM Poly Specialises in the Installation of Poly Pipe, Electro-fusion and Extruder Welding and Fabrication

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

Victorian Pipe and Fittings Company in the Heart of the Goulburn – Murray Irrigation district

Polycon Engineer specialises in the Manufacture of PE Pipe & Fittings for Water including Mining, Irrigation & Civil Supply Systems

<https://polyconengineering.com.au/>

### **Free Stainless Steel Crack Depth Gauge for Plastic Pipes for PPN Readers**

Please email [info@excelplas.com](mailto:info@excelplas.com) to receive your free depth gauge

## **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/>

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### **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](mailto: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](mailto:john@excelplas.com)  
To subscribe, visit <https://www.polypipenews.com.au/subscribe/>

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