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

Global News on Plastic Piping and Fittings

NEWSMAKERS: * Aquatherm * Carbon Nanotubes * CFRP * Class Action * CPVC * Electrofusion * ExcelPlas * Failure Analysis * GF Piping * PE100 * PEX * Plasson * PPI * PPN * PP-R * PVC * Rehau * Reliance Worldwide * RWC * Sharkbite™ * Uponor

INDUSTRY NEWS

Reliance Worldwide (RWC) Publishes New Sharkbite™ Technical Manual on PEX Pipes & Fittings [PDF]

https://www.sharkbite.com.au/wp-content/uploads/2021/08/SB_TechManual_0821_V1.pdf

Joe Ludlow Master Repiper Reviews Faulty UPONOR PEX Pipes (Video)

https://www.youtube.com/watch?v=ag_ctHC2aAg

Florida Suffers Numerous Sewage Leaks from Failure of PVC and HDPE Pipes

<https://player.vimeo.com/video/587838430?h=0bbd284e92>

Uponor Sells its Share in Joint Venture Phyn to Belkin

<https://www.plasticsnews.com/news/uponor-sells-its-share-joint-venture-phyn-belkin>

Rehau USA PEXa Piping Plant Celebrates 25 Years in Operation

<https://www.rehau.com/us-en/rehau-plant-cullman-celebrates-25-years-in-operation>

Plasson Publish Catalogue of Complete Range of Fittings for Polyethylene Piping Systems (July 2021) [PDF]

<https://plasson.filecamp.com/s/zwEGrMLqmJZvZC3t/fi>

PVC Pipes Get High Marks for Water Infrastructure Projects

<https://www.plasticstoday.com/extrusion-pipe-profile/pvc-pipes-get-high-marks-water-infrastructure-projects>

Uponor Patent New Method for Recycling Crosslinked PE (PEX) Pipes

<https://www.freepatentsonline.com/11091610.pdf>

Suitability and Fitness for Purpose of CPVC Piping for Commercial Building Applications [PDF]

<https://cloud.excelplas.com/s/9qat4ixq75BRmJz#pdfviewer>

CPVC Fire Water Piping Fails Due to Application of Fire Caulking to the Pipes by a Contractor

<https://cloud.excelplas.com/s/fnXpnZIsALINTUa#pdfviewer>

Mobile-Friendly Plastic Pipe News Website (One Stop for the Latest News & Updates)

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

LEGAL NEWS

Uponor PEX Pipe Hit By Class Action Lawsuit (Declassified)

<https://vision6.excelplas.com/ch/38100/5jtzb/2959773/evl4v7QbUVHbNyNWQzkTo6gb9JgcLUc ad8upGx81.html>

United States Sues Aquatherm and its US distributors Over Failure of Polypropylene (PP-R) Hot Water Pipes

<https://vision6.excelplas.com/ch/38100/5jtzb/2959766/evl4v7QbUVHbNyNWQzkTEpqHV8hikW EHxwRO5fXt.html>

PIPE FAILURE

Pressure Effects on the Lifetime of Gas High Density Polyethylene Pipes (Use of OIT to Predict Lifetime)

<https://asmedigitalcollection.asme.org/pressurevesseltech/article-abstract/144/2/021501/1114103/Pressure-Effects-on-the-Lifetime-of-Gas-High>

Plastic Pipe Testing Services Worldwide

ExcelPlas plastic pipes testing services help determine strength and ageing properties of piping materials and systems, serving plastic pipe materials manufacturers, pipe extruders, certification bodies and utility companies worldwide, helping water and gas supplies run smoothly.

Schedule a meeting with one of our experts to learn more about how we can help you to develop better products, save time and money, and minimize potential risk to your business. Specialists in failure analysis of HDPE, PEX, PP-R, PB, PVC and GRP Piping.

<https://www.excelplas.com/wp-content/uploads/2020/01/Excelplas-A4-Brochure-4pp-Plastic-Pipe-Testing-NTs.pdf>

NEW DEVELOPMENTS

Extremely High Reinforcement of HDPE Pipes by Low Loading of Unzipped Multi-Wall Carbon Nanotubes

Just 0.2% wt/wt of uMWCNTs in HDPE as a filler increases the tensile strength and Young's modulus of HDPE by more than 100%.

<https://onlinelibrary.wiley.com/doi/abs/10.1002/app.51478>

COMPOSITE PIPES

Dynamic Performance Detection of CFRP Composite Pipes based on Quasi-Distributed Optical Fibre Sensing Techniques

<https://www.frontiersin.org/articles/10.3389/fmats.2021.683374/full>

FAILURE ANALYSIS

Q1 and Q2 2021 – The Second Year of COVID-19 and Plastic Pipe Failures

It has been a busy Q1 and Q2 2021 at ExcelPlas working on the following failure analysis jobs:

- 24 PP-R pipe failures
- 9 PEX pipe failures
- 7 Polybutylene pipe failures
- 6 HDPE pipe failures
- 4 Electrofusion Fitting PE Failures
- 3 PVC pipe failures

Should you want to discuss a plastic pipe failure investigation please contact us at:

<https://www.excelplas.com/contact-us/>

ExcelPlas Investigating Poly Pipe Failures

Through failure analysis & forensic chemistry, we help clients improve product performance, increase profits, & resolve product liability claims with plastic pipes and fittings.

We are dedicated to unmatched excellence in failure analysis, investigative chemistry, material testing, and expert witnessing for plastics, polymers and composites.

With over 25 years of investigative experience, the staff at ExcelPlas are uniquely positioned to help clients resolve the most challenging performance and processing issues related to materials and finished pipes and fittings.

<https://www.excelplas.com/contact-us/>

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 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 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

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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