

August 2020 Vol. 8

Author : PPN

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

Keep Up-to-Date During Corona Isolation with PPN

NEWSMAKERS: * Borealis * ExcelPlas * Exxon Mobil * JANA Labs * Marlex * PEX * PPI * PPN
* Rehau * RELIANCE * SABIC * SAI Global * Uponor * Watermark

POLY PIPE FAILURE & STABILIZATION

Litigation Over an Allegedly Faulty PEX Plumbing Pipe Involving JANA Labs (Declassified)

<https://scholar.google.com/scholar-case?case=10242061272644513795&q=pex-pipe&hl=en&as-sdt-2006&as-ylo-2020>

Court Case on Allegedly Faulty PEX Pipe – JANA Contends Court Abused its Discretion (Declassified)

https://www.courtlistener.com/pdf/2020/03/25/in-re_jana-corporation.pdf

Watermark License Expired on PEX-PLUS™ Pipe

<https://register.saiglobal.com/client/schedule.aspx?setID-SF01&custID-AS123921&appCertNo-WMK20377>

SABIC Patent Use of New Antioxidant Cholestanyl Ferulate in HDPE Pipe

<http://www.freepatentsonline.com/20200002517.pdf>

Marlex Bimodal Corrugated Pipe Resin has > 100 mins Oxidative Induction Time (OIT)

<https://www.cpchem.com/sites/default/files/2020-07/Marlex-20TRB-490-20Polyethylene.pdf>

PPI Specifications for PE 4710 Buried Potable Water Service, Distribution and Transmission Pipes and Fittings

<https://plasticpipe.org/pdf/mab3.pdf>

Finite Element Analysis of High-Density Polyethylene Pipe in Pipe Gallery of Nuclear Power Plants

<https://www.sciencedirect.com/science/article/pii/S173857332030855X>

MARKET PROFIT RESULTS

Borealis Reports 80% Profit Slide and Major Projects Suffer Delays

[http://www.mrcplast.com/news-news_open-374672.html#-text-MOSCOW-20\(MRC\)-20-2D-2D-20Borealis-20\(the-20COVID-2D19-20pandemic-2C-20reported](http://www.mrcplast.com/news-news_open-374672.html#-text-MOSCOW-20(MRC)-20-2D-2D-20Borealis-20(the-20COVID-2D19-20pandemic-2C-20reported)

SABIC Reports 29% Profit Slump for 2020 Second-Quarter Sales Compared to 2019

<https://www.bnnbloomberg.ca/saudi-chemical-maker-sabic-expects-recovery-following-loss-1.1476304-text=Sabic-20generated-20second-2Dquarter-20sales.billion-20riyals-20a-20year-20earlier>

Sabic Q2 Revenue Drops 29% to \$6.57bn

http://www.tradearabia.com/news/IND_371350.html

Exxon Reported \$1 Billion Loss for Q2 2020

<https://www.spglobal.com/platts/en/market-insights/latest->

[news/petrochemicals/073120-exxonmobil-chemical-earnings-more-than-doubled-on-year-in-q2](https://www.finnewsnetwork.com.au/archives/finance_news_network276647.html)

Reliance (ASX:RWC) Profit Drops by 33% as Construction Slows in Key Markets

https://www.finnewsnetwork.com.au/archives/finance_news_network276647.html

PREVENTING FAILURE OF POLY PIPES

Oxidative Resistance Testing of Plastic Pipes

ExcelPlas' Advanced Pipe Test Facility (APTF) has introduced new oxidative resistance testing capacity, providing the unique ability to quickly and effectively measure and evaluate material performance over time. Our capabilities include accelerated testing of the potential impact of disinfectants (chlorine, chlorine dioxide, chloramines) on the long-term performance of materials in potable water applications (most commonly PE, PEX, PE-RT and PP-R) as well as proprietary testing methodologies and leading edge proprietary analysis methodologies. Pipes are exposed to chlorine dioxide (1 ppm, 40 °C, 6 bar, hoop stress 3.75 MPa) in a long-term ageing apparatus. The chlorine-dioxide is continuously freshly generated and circulated through the loop (200 L/h).

We currently test to:

- ASTM F2023 – Standard Test Method for Evaluating the Oxidative Resistance of Crosslinked Polyethylene (PEX) Tubing and Systems to Hot Chlorinated Water
- ASTM F2263 – Standard Test Method for Evaluating the Oxidative Resistance of Polyethylene (PE) Pipe to Chlorinated Water

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

Non-Destructive Inspection of HDPE Butt Fusion and Electrofusion

<http://www.janatechnology.com/usercontent/whitepapers/non-destructive-inspection-of-polyethylene-fusions-and--electrofusion.pdf>

Health Check on Poly Pipes

ExcelPlas Labs have been serving the gas, oil and water industries for the past 20 years within Australia, New Zealand and Oceania. The company is a major testing provider to the pipeline and water industry. Whether you're an engineer, consultant, pipeline owner, pipeline operator, water facility or construction company, ExcelPlas Labs can conduct a range of analytical testing on poly pipes to assess their condition, integrity and durability. ExcelPlas Labs have extensive in-house coatings testing equipment such as DSC, FTIR, TGA, TMA, OIT, XRD, QUV etc.

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

[Pipe-Testing-NTs.pdf](#)

Failure Analysis of PE-Xa (peroxide), PE-Xb (silane), PE-Xc (radiation) and PE-Xd (azo) Pipes

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

Experts in Forensic Failure Analysis of Polymer Pipes and Fittings

<https://www.excelplas.com/wp-content/uploads/2020/01/Excelplas-A4-Brochure-2pp-Mechanical-Testing-NTs.pdf>

Australia's State-of-the-Art 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.

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

REHAU: Pushing Circular Economy with Strong Conviction and Future Generations in Mind

<https://www.youtube.com/watch?v=jelie1hbct4>

ExcelPlas Labs - for Testing Times

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

PPN Now Reaching Over 10,000 Readers in the Plastic Pipe Industry Worldwide (Free Subscriptions)

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

- PPN Now Offering Digital Ads, Featured Articles and Premium Positioning
 - PPN Can Publish Press Releases and Time Sensitive Messages Instantly to a Global Geosynthetic Audience
-

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

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/>

2020 Copyright ExcelPlas Labs