

# January 2020 Vol. 1

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

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NEWSMAKERS: \* ASTM \* Fletcher Builder \* McConnell Dowell \* MPC \* PB \* PEX \* Plasson \* SCG

### SCG Chemicals Patents New Multimodal PE Pipe Resin (Breaking News)

<https://patents.google.com/patent/US20190359741A1/en>

### Measurement of Environmental Stress Cracking Resistance of Polyethylene Pipe: A Review

<http://cloud.excelplas.com/index.php/s/QmiZ214CkypJtAB#pdfviewer>

### Water Authority Suffers Extensive Premature HDPE Pipe Failures

<https://www.journal-news.com/news/local/water-treating-chemical-causing-early-failure-hamilton-pipes/PaUkfcSrY39NEtv8flENSP/>

### PEX Piping Blamed for Failures

<https://www.contractormag.com/home/article/20874149/pex-blamed-for-failures>

### Polybutylene Pipe Replacement Program

<https://www.johncflood.com/blog/diy-how-to/polybutylene-big-blue-pipe-replacement>

### **New ASTM Standard Published**

ASTM F2905– 19 Standard Specification for Crosslinked Polyethylene (PEX) Line Pipe For Oil and Gas Producing Applications

<https://www.astm.org/Standards/F2905.htm>

### **Modeling and Simulation of PE100 Pipe Response Under Transient Events Caused by Pump Failure**

<http://yadda.icm.edu.pl/yadda/element/bwmeta1.element.baztech-91a03643-a20e-4bb1-a961-d879c45a6811>

### **Major HDPE Piping Project for Murphy Pipeline Contractors**

<https://www.trenchlessinternational.com/2019/12/16/major-project-for-murphy-pipeline-contractors/>

### **McConnell Dowell has won a new contract to construct HDPE ocean outfalls in Auckland, New Zealand**

<https://www.trenchless-australasia.com/2019/12/17/mcconnell-dowell-awarded-new-auckland-project/>

### **Ductile Iron Pipe Industry Attacks HDPE Pipe**

<https://www.mcwaneductile.com/blog/hdpe-and-di-pipe-differences-that-matter-a-comparative-narrative/>

### **Investigation of Buried HDPE Pipe Deflection Behavior**

<https://avesis.yildiz.edu.tr/yayin/6e99203e-8809-4b35-8970-2281bf326123/investigation-of-buried-hdpe-pipe-deflection-behavior>

### **Risk Assessment of an Urban Natural Gas Polyethylene Piping System**

<https://ascelibrary.org/doi/full/10.1061/%28ASCE%29PS.1949-1204.0000440>

### **Enrol Now for 2020 Electrofusion and Poly Butt Welding Courses**

<https://www.picac.vic.edu.au/event/butt-and-electrofusion-welding>

## **Uncertainty in the Life Cycle Greenhouse Gas Emissions and Costs of HDPE Pipe Alternatives**

<https://www.sciencedirect.com/science/article/pii/S0921344919305087>

## **Management of Thermal Process for Polyethylene Gas Pipes Welding with Built-in Heater**

<https://iopscience.iop.org/article/10.1088/1742-6596/1392/1/012086/pdf>

## **On the Effect of the Ply Stacking Sequence on the Failure of Composite Pipes Under External Pressure**

<https://www.sciencedirect.com/science/article/pii/S0951833919303727>

## **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/>

## **Australian Poly Solutions Specialises in HDPE Pipe Fusion Welding and Hydrostatic Testing Services with Knowhow and Experience you can rely on**

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

## **RITMO: APP - SET & GO! PRO Butt Fusion for Pressure Pipe**

<https://www.ritmo.it/en/butt-fusion-for-pressure-pipe/app-set-go-pro/>

Video: <https://youtu.be/YP4GmmBdufU>

## **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](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)

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