

## October 2020 Vol. 4

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

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NEWSMAKERS: \* Aliaxis \* Borealis \* Colloids \* ExcelPlas \* Exxon Mobil \* LyondellBasell \* McElroy \* PERT \* PPN \* PP-R \* Plasson \* REVINCA \* Victaulic

#### INDUSTRY NEWS

##### **Exxon Mobil Patents New Metallocene Polyethylene for Pressure Pipe Applications**

<https://www.freepatentsonline.com/20200299431.pdf>

##### **Colloids HDPE Compounds for High-Pressure Gas and Water Pipe Applications (Video)**

<https://www.youtube.com/watch?v=jiTyNuvUH8M>

##### **Free Webinar - PE100-RC in the Future EN and ISO PE Pressure Pipe Standards**

Option A: Wednesday, 4th November 2020, 11.00-13.00 (CET)

Option B: Thursday, 19th November 2020, 15.00-17.00 (CET)

PE100-Rc in the Future EN and ISO Pe Pressure Pipe Standards will explain the integration of PE100-RC into the main application standards EN1555 for gas and EN12201 for water application and introduce the four new test methods for PE100-RC.

<https://www.borealis.solutions/webinar-pe100rc/>

## **Mechanical Joining System for HDPE Pipe Webinar Today**

Presenter: Stefan Patterson from Victaulic

<https://www.hcaa.org.au/events/mechanical-joining-system-hdpe-pipe-cpd-event>

## **REVINCA Latest Generation Bimodal HDPE Pressure Pipe (Sponsored Link)**

<https://revincausa.com/>

## **FAILURE ANALYSIS AND PREVENTION**

### **Effect of Polyethylene and Polypropylene Cross-Contamination on Slow Crack Growth Resistance of HDPE Pipe**

<https://www.tandfonline.com/doi/abs/10.1080/1023666X.2020.1833143?journalCode=gpac20>

### **Polypropylene PP-R Green Pipe Hot Water Piping Failure Lawsuit**

<https://acsl.net.au/wp-content/uploads/2019/10/The-Owners-Strata-Plan-No-69746-v-IPM-Pty-Ltd-The-Owners-Strata-Plan-No-71241-v-IPM-Pty-Ltd-2015-NSWSC-772.pdf>

### **Study on Chlorine Dioxide Degradation of Plastic Pipes (PP-R and PERT)**

<https://europepmc.org/articles/pmc6888174/bin/ijerph-16-04582-s001.pdf>

### **Video on How to install Plasson Universal Slip Repair Fittings**

<https://www.youtube.com/watch?v=Sz7WwoUHgp0>

### **ExcelPlas Plastic Pipe Pressure Testing Laboratory can test to the following ASTM Standards:**

- ASTM D1598 – Standard Test Method for Time-to-Failure of Plastic Pipe Under Constant Internal Pressure
- ASTM D1599 – Standard Test Method for Resistance to Short-Time Hydraulic Pressure

of Plastic Pipe, Tubing, and Fittings

- ASTM D2837 – Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials or Pressure Design Basis for Thermoplastic Pipe Products

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

## NEW RESEARCH

### **Modelling of Unreinforced and Geosynthetic-Reinforced Sandy Soil Cover Over Large-Diameter HDPE and PVC Pipes [PDF]**

[https://www.researchgate.net/profile/Yan\\_Kou4/publication/344314046\\_Numerical\\_Modelling-of-Unreinforced-and-Geosynthetic-Reinforced-Sandy-Soil-Cover-over-Large-Diameter-HDPE-and-PVC-pipes](https://www.researchgate.net/profile/Yan_Kou4/publication/344314046_Numerical_Modelling-of-Unreinforced-and-Geosynthetic-Reinforced-Sandy-Soil-Cover-over-Large-Diameter-HDPE-and-PVC-pipes)

### **Electromagnetic and Mechanical Properties of Conductive Polyethylene Composites for HDPE Pipe Location**

<https://iopscience.iop.org/article/10.1088/1361-665X/abbc5a/meta>

### **Comprehensive News Portal on the Global Poly Pipe Industry**

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

## JOBS

### **Aliaxis Seeking New Business Development Manager**

[https://be.linkedin.com/jobs/view/new-business-development-manager-at-aliaxis-2197625472?refId=90789ac4-d112-432d-ae92-89e3eec99ffb&position=12&pageNum=0&trk=public\\_jobs\\_job-result-card\\_result-card\\_full-click](https://be.linkedin.com/jobs/view/new-business-development-manager-at-aliaxis-2197625472?refId=90789ac4-d112-432d-ae92-89e3eec99ffb&position=12&pageNum=0&trk=public_jobs_job-result-card_result-card_full-click)

### **Iplex Pipelines Seeking Sustainability Manager**

<https://www.seek.com.au/job/50688749?type=standout>

## **QENOS Seeking Technical Development Specialist in Polyethylene**

<https://grabjobs.co/australia/job/full-time/manufacturing/technical-development-specialist-418395?utm-source=linkedInXML>

## **Operator Wanted for HDPE Pipe Extrusion in Perth**

Our client is now a global leader for customized on-site manufacture of superior performance High-Density Polyethylene (HD PE100) pipe systems.

<https://www.seek.com.au/job/50700363?type=standard>

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## **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](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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