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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 in Real-Time

NEWSMAKERS: : * Alkadyne * Aliaxis * Borouge * BorSafe® * Emerging Contaminants * ExcelPlas * Failure Analysis * GF Piping * Marley * Microplastics * MUNICIPEX® * NIBCO * PE100+ Association * PE100RC * PEXGOL * PEX Pipe Failures * Plastic Pipe Institute * PPI * PPN * Qenos * REHAU * Uponor * Vivasvaan * Vinidex

INDUSTRY ALERT

Emerging Contaminants Migration from Plastic Pipes used in Drinking Water Distribution Systems (Special Feature)
https://cloud.excelplas.com/s/Um7PvG5UNjjyO6a

INDUSTRY NEWS

Upcoming Webinar - Benefits of PE100+ Pipes and Their Use in Trenchless Technology
https://register.gotowebinar.com/register/2254036640843610638

Pipe Webinar Series - PE100RC and Relevance to the Future AS/NZ PE Pressure Pipe

Product Standards - Alkadyne® Engineered to Outperform
https://alkadyne.com.au/pipe-webinar-series-pe100rc-and-relevance-to-the-future-as-nz-pe-pressure-pipe-product-
standards/

The Effect of Welding Defects on the Long-Term Performance of HDPE Pipes [PDF]
https://www.mdpi.com/2073-4360/14/19/3936/pdf?version=1663723990

Benefits of BorSafe™ Super Low Sag PE100-RC Pressure Pipe Material Makes it First Choice for Large-Diameter Pipeline Projects
https://www.borealisgroup.com/news/benefits-of-borsafe-super-low-sag-pe100-rc-pressure-pipe-material-make-it-
politejos-first-choice-for-large-diameter-pipeline-project

GF Piping Systems Develop the First Ultrasonic NDT Solution for Plastic Pipelines
https://www.pipeliner.com.au/ultrasonic-ndt-a-quick-safe-and-proven-solution-for-ensuring-piping-system-integrity/

Plastic Pipes Manufacturers Seek Suspension of Safeguard Duty Investigation on PVC Resin Imports From Japan
https://www.polymerupdate.com/news/Important/20Sep2022/1189536/plastic-pipes-manufacturers-seek-suspension-
of-safeguard-duty-investigation-on-pvc-resin-import-from-japan

UK-based Marley Picks Vivasvaan as GCC Manufacturer of its Piping Products
https://www.gccbusinessnews.com/uk-based-marley-picks-vivasvaan-as-gcc-manufacturer-of-its-piping-products/

Research on the Mechanical Behaviour of Buried Double-Wall Corrugated HDPE Pipes
https://www.mdpi.com/2073-4360/14/19/4000/pdf?version=1664013169

Investigation on Physical and Mechanical Properties of HDPE (PE100) Using Novel

Catalyst with Hostalen® Technology
https://www.ije.ir/article_154997_19a943a6ddc2e78d3666b22215dd1d2d.pdf

Modified Cross-Section Technology for Installing a Close-Fit HDPE Pipe Lining into an Existing Host Pipe
https://ascelibrary.org/doi/abs/10.1061/9780784484272.007

Aliaxis Next Ventures into Digital Water
https://www.bluefieldresearch.com/research/aliaxis-next-ventures-into-digital-water/

PEX PIPES

The World´s First Bio-based PEX Pipes: Uponor PEX Pipe Blue: (VIDEO)
https://www.youtube.com/watch?v=AjbqjeUqicQ

REHAU Broadens its Range of Piping with the Addition of MUNICIPEX® Reclaim PEXa Pipe
https://www.wwdmag.com/pipe-distribution/pipe/product/21004651/rehau-municipex-reclaim-pipe

PEX Lawsuit: Martha Lynne Smith and Kevin Andre Smith v. NIBCO, Inc.
https://scholar.google.com.au/scholar_case?case=14102918736091127826&q=pex+pipes&hl=en&scisbd=2&as_sdt=2006

Uponor Unveils Next Generation of Energy Efficient Pipes
https://www.energymanagermagazine.co.uk/uponor-unveils-next-generation-of-energy-efficient-pipes/

PEX Pipes as a Replacement for Steel Pipe in Aggressive Environments
https://www.pexgol.com/wp-content/uploads/2022/08/cs_105-replacement-of-steel-pipes-for-pe-

x.pdf

Analysis of Possibilities of Increasing Convective Heat Transfer Intensity in PEX Pipes for Applications in Ground Heat Exchangers
https://www.dl.begellhouse.com/references/1bb331655c289a0a,715716a453fb6732,0577d720526a4b32.html

JOBS

Vinidex Seeking Production Manager for Plastic Pipe for WA Role (Salary 120K/a)
https://www.adzuna.com.au/details/3500450991

PLASTICS AND THE ENVIRONMENT

NZ Government Announces $5m Fund to Help Reduce Reliance on Plastics
https://www.rnz.co.nz/news/political/475366/government-announces-5m-fund-to-help-reduce-reliance-on-plastics

Microplastics can Aggravate the Impact of Ocean Acidification on the Health of Mussels
https://www.sciencedirect.com/science/article/abs/pii/S0269749122009150

Microplastics in the Water Column of Western Lake Superior
https://pubs.acs.org/doi/full/10.1021/acsestwater.2c00169

Purdue University Study Finds Microplastics in Plastic Pipes
The study found that microplastics (MP) have likely reached building faucets for decades but have received no characterization until recently. Bench-scale testing using two MPs, of different density, in copper and crosslinked polyethylene (PEX) pipes revealed size influenced the amount of MPs retained in a pipe.
https://hammer.purdue.edu/articles/thesis/Stagnation_Impacts_on_Building_Drinking_Water_Sa

fety_The_Pandemic_
and_Microplastics/20388876

FAILURE ANALYSIS

HDPE PIPE JOINT FAILURE EXPERTS
The failure of electrofusion or butt fusion joints in polyethylene gas pipework can be due to several factors including incorrect alignment, contamination, incorrect temperature or the duration of joint fusion.
If a joint failure occurs, investigations are important to help identify modifications to procedures or training that can help you minimise the occurrence of future failure. This is where we can help.
We provide a detailed PE joint failure investigation service which typically include:

- Digital inspection of the received sample, including dimension measurements of sizes and ovality
- Segmenting the joint for visual and microscopic investigation
- Elemental analysis of any contamination found in the joint
- Peel decohesion testing

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

Plastic Pipeline Expert Witness
If you require expert witness or legal consulting assistance in pipeline failure analysis, plastic pipeline joining methods, plastic piping welding, or associated technical areas please contact us.
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/

MORE POLY PIPE NEWS

PPN the Digital News Platform for Communicating to the Global Plastic Pipe Industry
Send Us Your News!!! PPN Publishes weekly.
https://www.youtube.com/watch?v=eUKxWbOZY10

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/

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 3mm 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 buttweld 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.

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