

SABIC INTRODUCES UNIQUE NEW PIPE TECHNOLOGY IN COLLABORATION WITH MAJOR PLAYERS IN THE PIPE INDUSTRY

SABIC, a global leader in the chemical industry, today has announced the development of a new technology and range of dedicated polyethylene (PE) and polypropylene (PP) resins that mark a significant leap forward in the performance profile of polyolefin pressure pipes. Together with Tecnomatic and aquatherm, two major specialists in pipe manufacturing, the technology is being advanced from concept to reality. As 'Golden Sponsor' of the International Plastic Pipes XX (PPXX) Conference and Exhibition (6-8 September 2021) in Amsterdam, SABIC introduced the new concept during the conference and presented the technology in the PPXX Technical Sessions.

There is an urgent need for more durable and reliable as well as cost-efficient and sustainable pipe systems to meet the potable water and sanitation needs of an ever-growing global population. Since the introduction of polyolefins for pressure pipes, continuous efforts have been made to improve the performance levels and expand the application scope of polyolefin pipes. SABIC has now succeeded in optimizing the formulation of dedicated PE and PP resins for biaxial stretching that will allow manufacturers to boost the key properties of pressure pipes to unprecedented levels. The new resins in combination with the BiAx stretching technology will enable a new generation of lighter and stronger as well as energy- and cost-efficient pipe systems.

Benefits in performance and sustainability

SABIC's new BiAx Pipe technology offers substantial improvements over incumbent polyolefin pipes across the entire range of performance criteria. Higher resistance against internal pressure enables wall-thickness reduction and thus can reduce material use by at least 30 percent. Superior resistance to slow-crack growth (RC) facilitates trenchless pipe installation. In addition, the very smooth inner wall surface reduces the energy required for pumping. The technology renders the pipes more abrasion resistant and prolongs their lifetime. Combined, these characteristics provide a major leap forward. In addition, the new PE and PP pipes promise better resistance to disinfectants, a lower coefficient of linear thermal expansion (CLTE) and improved low-temperature impact strength.

SABIC® BiAx PIPE TECHNOLOGY POTENTIALLY OFFERS:



WALL THICKNESS REDUCTION

THROUGH HIGHER INTERNAL PRESSURE RESISTANCE



SUPERIOR RESISTANCE TO SLOW CRACK GROWTH

FACILITATING TRENCHLESS PIPE INSTALLATION



REDUCTION OF SYSTEM COST

THROUGH REDUCED WEIGHT AND SMOOTH INNER SURFACE



PROLONGED LIFE TIME

THROUGH HIGHER ABRASION RESISTANCE AND BETTER RESISTANCE TO DISINFECTANTS

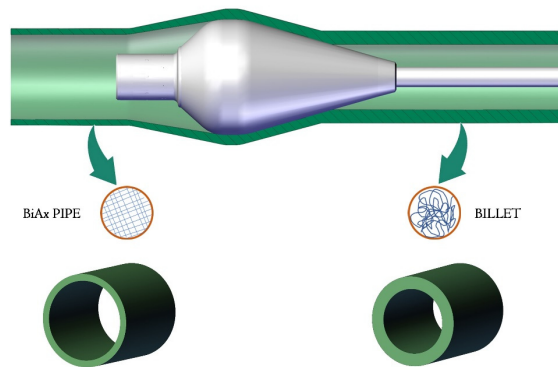


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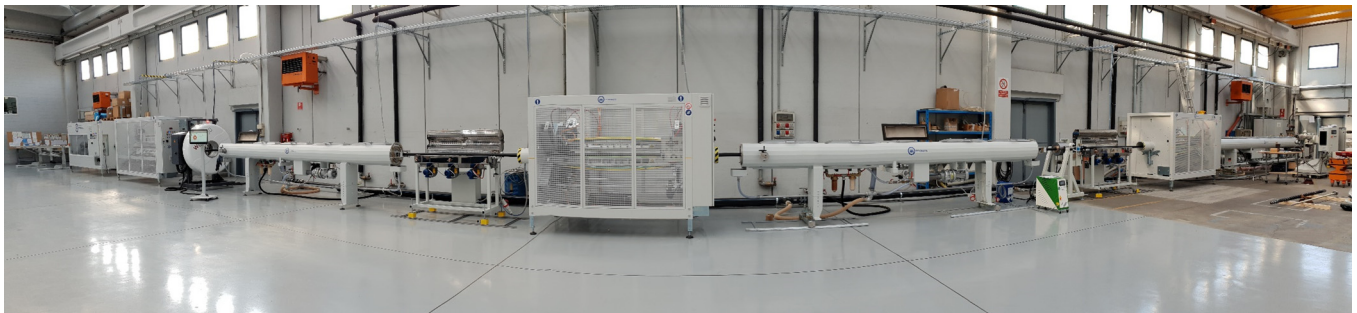
Connecting across the value chain

SABIC is partnering with leading players in the pipe industry to validate and accelerate the time to market of its new BiAx Polyolefin Pipe technology.

As part of these joint efforts, Tecnomatic, an Italian pipe manufacturing equipment specialist, has installed a fully integrated continuous BiAx pipe extrusion line for evaluation, trials and optimization of the process with dedicated SABIC resins. On this line, pipes are first conventionally extruded with thick walls and small diameters, then drawn over a heated mandrel and stretched in two directions to obtain larger diameters and thinner walls. This gives them their characteristic BiAx properties.



SABIC has developed a new range of PE and PP resins that offer significant improvements in key performance properties for biaxially stretched pressure water pipes.



SABIC introduces unique new BiAx pipe technology in collaboration with major players in the pipe industry. The photo shows an integrated system from Tecnomatic for continuous BiAx pipe extrusion, with dedicated new high-performance PE and PP resin formulations from SABIC.

Another partner in this project is aquatherm, a world leader in PPR pipe systems with extensive product, application and market knowledge. The company targets to introduce SABIC's advanced biaxially oriented pressure pipe technology in a wide range of diversified application areas.

CONTACT

For more information about the new BiAx Polyolefin Pipe technology, please contact us via www.sabic.com/en/contact

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