

Five-layer extrusion

Tecnomatic of Italy has delivered a multi-purpose extrusion line to a European producer of five-layer PE-RT and PEX pipe.

The line - which has a working range from 8 to 32mm - runs at up to 60 m/min for the five-layer PEX or PE-RT, and uses an updated version of the company's Athena die head. The line can also work with PE pipes in two layers up to 63mm, by means of an additional Venus Multi 2 die-head.

The line configuration consists of an Atlas 60.30 Evo as the main extruder. This is part of the revised series of extruder in 30 L/D which has been further optimised for higher output, melt homogeneity and energy consumption. The line's co-extruders - Mizar and Atlas 30 - are used for adhesive, EVOH and external layers. All the extruders work in synchronisation mode and are integrated and fed by a gravimetric system for a total of eight dosing components.

An ultrasonic wall thickness station continuously controls pipe parameters such as eccentricity, thickness, diameter and ovality during production. To manage the high-speed coiling, the line includes a fully automatic coiler from FB Balzanelli, which is designed to process both PE-RT, PEX and PE coils.

In addition, Tecnomatic has supplied an extrusion line to Authentic Production, a pipe extruder in Myanmar. The company makes multi-layer pipes up to 630mm in diameter. It has previously used Tecnomatic lines to make pipe up to 1200mm diameter. The latest product uses BorSafe HE3494-LS-H PE100 high stress crack resistant (HSCR) material in the outer layer to withstand point loads and surface damage that may occur during installation. The pipe has two layers, equal to 10%



IMAGE: TECNOMATIC

and 90% of the total thickness. The outer layer is made from HSCR PE100 material, the core from standard PE100.

Extra features can be added to the pipe, such as a peelable outer skin. This peelable layer, often made from modified polypropylene, protects the pipe surface against potential notches and cracks during installation. It is typically 0.6-0.7mm thick and is added by a crosshead positioned before the final cooling bath.

Above: A European pipe producer is using an extrusion lines from Tecnomatic to make five-layer PE-RT and PEX pipe