Borouge’s RA130E PP-R grades produce the ideal solution for plumbing and heating systems

Established solution in many European countries

Plastic pipe systems manufactured from Polypropylene Random Copolymer (PP-R) were introduced into the European market over 25 years ago. Since then they have been used very successfully for domestic and commercial hot and cold water systems and today account for a large share of this market.

Corrosion resistant plastic pipes replace metal systems

Over recent years, plastic pipe systems have progressively replaced copper and galvanised steel. Corrosion products affect the water quality and corrosion can lead to premature pipe failure. Even copper pipes have corrosion problems if the water is outside a specific band of pH values.

Simple well established design specifications and procedures

The pipe design for RA130E PP-R systems is very straightforward and is defined in for example the German specification DIN 8077/8078. The dimensioning takes account of the hydrostatic pressure test performance as defined by reference curves and takes account of service design coefficients for different applications and the operating pressure of the system.
High integrity fusion welded systems

There is no need for rubber gaskets as RA130E PP-R pipes and fittings can be simply welded together using electrically heated tools. To connect to metal appliances or ancillaries it is possible to manufacture a range of fittings with integral metal inserts.

Easy to install lightweight pipe systems

Because RA130E PP-R systems are relatively rigid but light in weight they are easy to manoeuvre and fix in place using standard pipe clamps. Many of the high rise buildings across the world have PP-R hot and cold water systems.

Suitable for aluminium multi-layer pipe production

If an oxygen diffusion barrier is required, for example to protect metal radiators from internal corrosion, a PP-R/aluminium multi-layer pipe can be used. This is normally a 5 layer pipe with a central layer of aluminium coated on either side with adhesive and an inner and outer layer of RA130E.

Long maintenance free lifetime

In addition to exceptional mechanical performance, Borouge’s RA130E PP-R grade provides superior long-term heat resistance due to a specially designed additive package, which also offers an excellent resistance to leaching. RA130E also exhibits excellent chemical resistance and meets the requirements for materials in contact with drinking water.