

AQUACEL BROCHURE 2016

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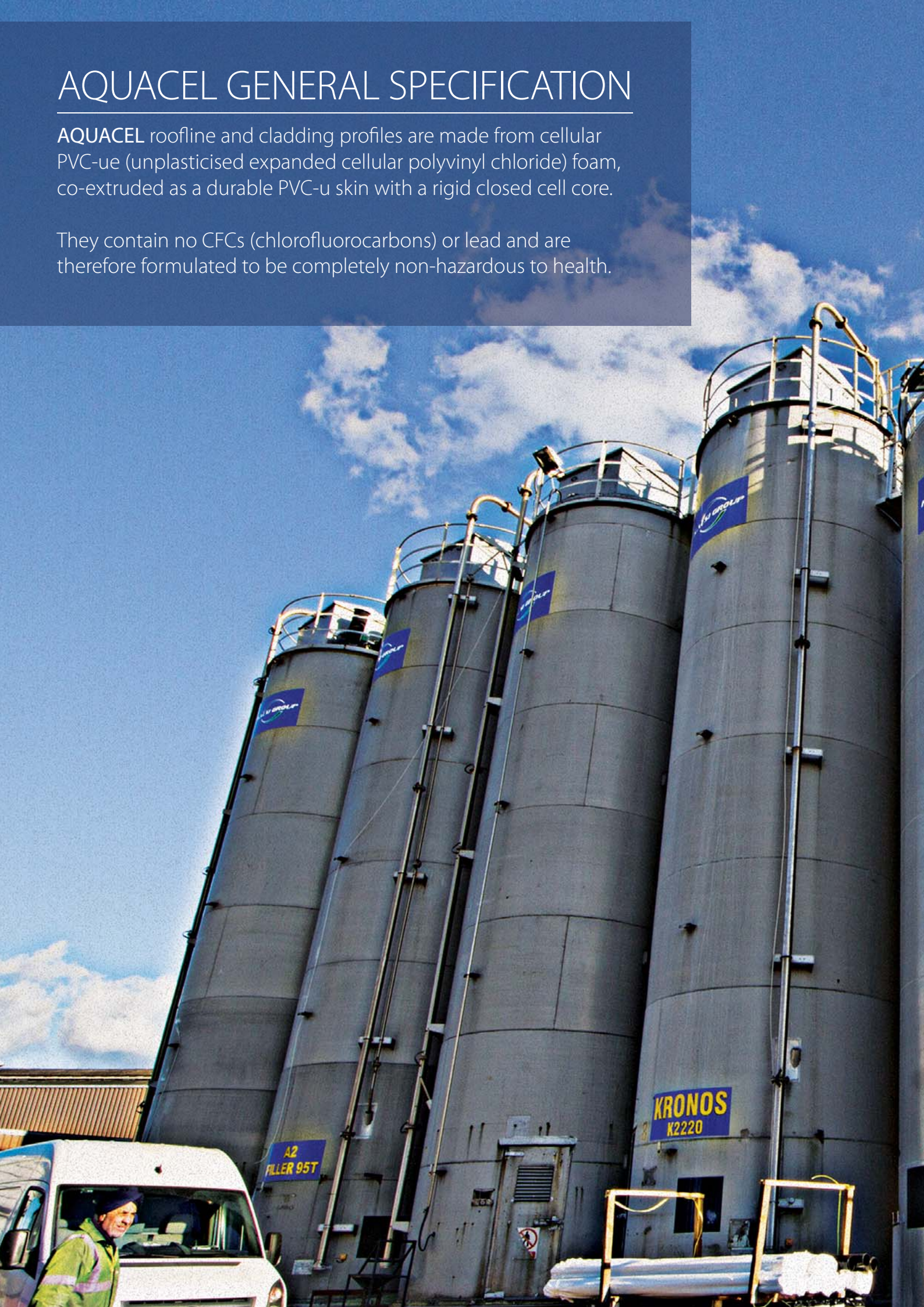
Aquacel

Plastic Building Products

AQUACEL GENERAL SPECIFICATION

AQUACEL roofline and cladding profiles are made from cellular PVC-ue (unplasticised expanded cellular polyvinyl chloride) foam, co-extruded as a durable PVC-u skin with a rigid closed cell core.

They contain no CFCs (chlorofluorocarbons) or lead and are therefore formulated to be completely non-hazardous to health.




R2
RESIN K67
R1
RESIN K60

STANDARDS

AQUACEL roofline and cladding products are manufactured in accordance with two recognised standards:

The Foam Profiles

British Standard specification BS 7619: 1993.
Specification for extruded cellular unplasticised PVC profiles.

The Manufacturing Process

The international standard for Quality Assurance.
BS EN ISO 9002: 1994 (BS 5750: Pt. 2).











DENSITY

The thickness of profiles varies, which affects the proportions of outer skin and inner core, so there can be no single value for density but, in general, profiles are between 450 and 600 kg/m3.

STABILITY

Stability in this context is resistance to chemical and/or biological reaction.

Cellular PVC-ue is not affected by liquids or other substances in everyday use, and is resistant to attack by acids and alkalis. It is generally described as being resistant to attack by wood-boring insects. It is not attacked by termites or woodworm. It does not support the growth of fungus or bacteria. It may be subject to damage by a range of chemicals, generically known as esters, ketones and solvents.

COLOUR FASTNESS

The methods of test for colour fastness contained in British Standard specification BS 1006: A03: 1978 include gradings down to a minimum value for colour change of Grade 8 – AQUACEL white profiles all achieve either Grade 7 or 8, meaning that any fading or change in whiteness over a minimum 20 years will be within an acceptable range.

AQUACEL white profiles have demonstrated, in test conditions, excellent resistance to discolouration, and also to a degradation known as "pinking", which is generally believed to be related to processes involving Titanium Dioxide and Lead stabilisers. AQUACEL coextrusions instead use an advanced technology lead-free stabiliser which has superior resistance to discolouration.

Coloured profiles and associated products use organic pigments, chosen for their colourfast properties. Any fading experienced will be gradual and uniform – only detectable when compared with new materials. DURABILITY The denseness of the outer skin ensures adequate resistance to impact, thus ensuring a highly durable surface.

FIRE RESISTANCE

Resistance to the spread of fire can only apply to a completed assembly but not to its components.

Profiles have been tested for compliance with the Flame Retardance requirements of British Standard BS 476: BS 476 Pt 5: 1979 Ignitability Test - self-extinguishing.
Pt 6: 1989 Resistance to Fire Propagation - Class 1.
Pt 7: 1987 Resistance to Spread of Flame - Class 1Y.

STRENGTH

The strength of AQUACEL profiles and associated products cannot be measured as such, because strength is a characteristic of an assembly.

Thus the resistance to wind loads is entirely dependent on variable factors such as profile configuration/thickness and the spacing of fixings. When fixed in accordance at the recommended spacings, the roofline and cladding systems have adequate resistance to wind loadings.

Up to two storeys height, fixing spacings should not exceed 600mm centres, and from two storeys to a maximum of five storeys, 400mm centres.

THERMAL INSULATION

Thermal resistivity is normally referred to in terms of a U-Value.

AQUACEL profiles, due to the composition of their cellular inner core, offer thermal performance far superior to timber or other natural building products.

Due to the varying nature of the profiles in terms of configuration and thickness, thermal performance can only be generalised to between 0.06 and 0.1 w/mK. THERMAL MOVEMENT Expressed as the coefficient of linear expansion, AQUACEL profiles vary between 5 and 6 x 10-5 per degree Celsius.

When fixed in accordance with the manufacturer's recommendations, and in the British Isles, they perform satisfactorily. They should not be installed where ambient temperatures are likely to exceed 40 degrees, such as in close proximity to boiler flues. They should only be installed when the external air temperature is between 0 and 30 degrees. The thermal movement that occurs between day and night, sun and cloud, winter and summer should be allowed for as described in the installation recommendations.

WEATHER RESISTANCE

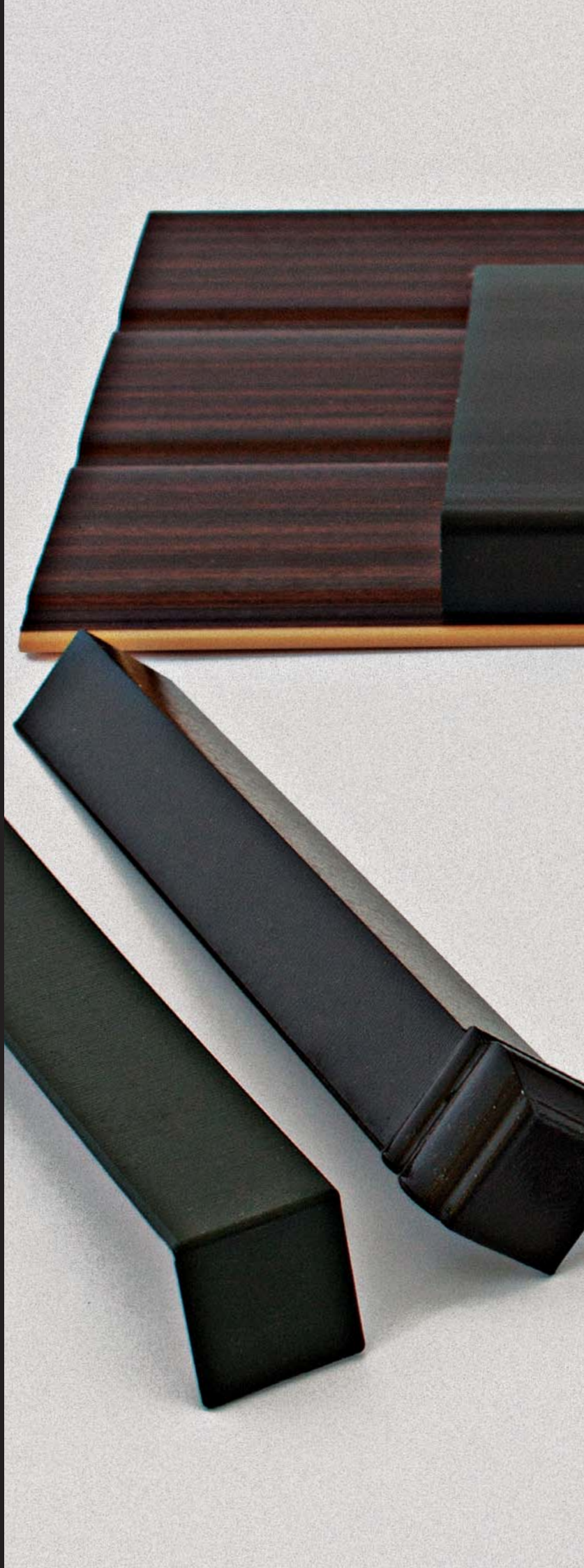
The impermeable external skin and closed cell structure of the core material makes AQUACEL roofline profiles resistant to water and the elements.

WORKABILITY

AQUACEL profiles are easily worked with conventional woodworking tools.

They can be sawn, shaped, cut, drilled, routed, nailed, screwed and glued.

Saws must have fine-toothed blades, and power saws should be set at their highest speed level, with carbide-tipped blades.

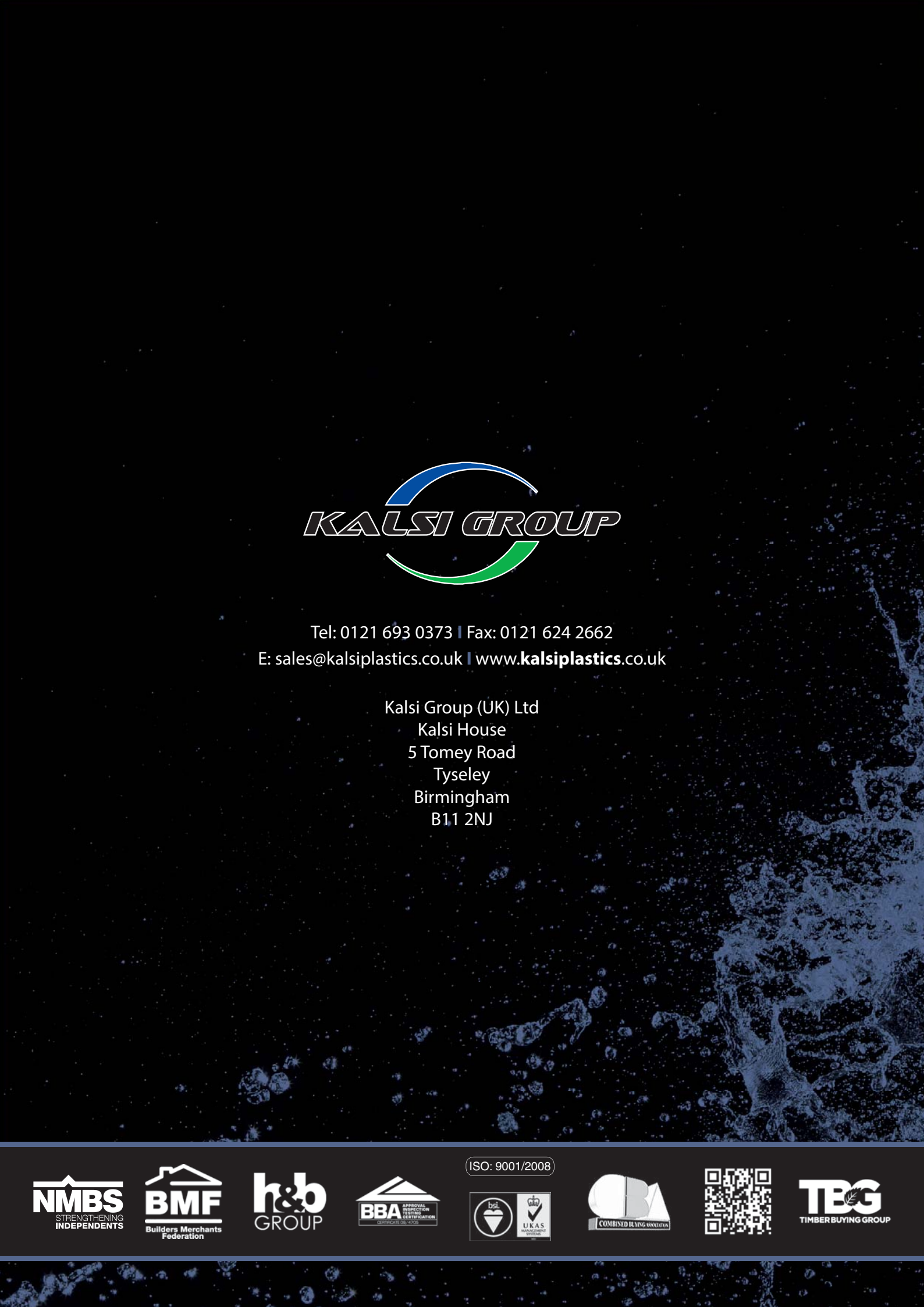


STOCKIST NETWORK

All **Kalsi Group** products are easily available from a network of stockists throughout the UK and Ireland.

A dedicated and flexible delivery fleet guarantees every item arrives on time and in pristine condition, catering for all customers, from the single stockist to multi-branch operations.





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