Structural Silicone Bonds
Lightweight Facade

Case Study: Espace Petrusse

The Espace Petrusse office building is now the worldwide headquarters of the largest steel company, Arcelor Mittal. DOWSIL™ 993 Structural Glazing Sealant and DOWSIL™ 791 Weatherproofing Silicone Sealant were not only specified due to their proven track record, but also thanks to Dow's leading industry quality assurance initiative, Quality Bond™.

The Project
- Located between the central business district and main town of Luxemburg, the magnificent Espace Petrusse building features two towers which contain over 20,000 m² of floor space spread over six storeys above ground and three storeys underground.
- This office building is part of a larger urban complex which includes hotels and apartments and is within walking distance of the historic UNESCO World Heritage area and near the train station served by the new high-speed TGV train Est Européen.

Schüco. The SFC 85 system permits the opening units to be integrated and flush with the facade, allowing the fixed lights and opening units to appear identical, both on the outside and on the inside. With half of the windows being opening units on this 7000 m² lightweight facade, it was important to specify a proven system of fixation for the insulating glass units.

The Solution
The curtain wall facade was the first to be constructed from a new thermally broken facade stick system, manufactured by Schüco. The SFC 85 system permits the opening units to be integrated and flush with the facade, allowing the fixed lights and opening units to appear identical, both on the outside and on the inside. With half of the windows being opening units on this 7000 m² lightweight facade, it was important to specify a proven system of fixation for the insulating glass units.

City and Country
City of Luxemburg, Luxemburg

Products*
- DOWSIL™ 993 Structural Glazing Sealant
- DOWSIL™ 791 Weatherproofing Silicone Sealant

Key Participants
- Architect: Bureau d'Architects Werner SA
- Curtain Wall Contractor/Structural Glazing Fabricator: Groven +
- Technical Distributor: Castelein Sealants

*Prior to February 2018, products listed were branded as Dow Corning.
when compared to the use of mechanical fasteners. DOWSIL™ structural bonding and weathersealing silicone sealants were specified for use in conjunction with the SFC 85 system due to their compatibility, longevity and safety record.

DOWSIL™ silicones were applied by curtain wall contractor and specialist applicator Groven+, who are certified members of Dow’s Quality Bond™ program. This recent initiative provides additional reassurance by ensuring that standards of best practice in quality management and silicone application are followed through an annual programme of world-class training and auditing.

DOWSIL™ 993 Structural Glazing Sealant

Certified by European Technical Approval ETA 01/0005, DOWSIL™ 993 Structural Glazing Sealant exhibits excellent weathering properties and high resistance to ultra-violet radiation, heat and humidity once cured. It is ideal for structural bonding of glass and metal, including coated, enamelled and reflective glass.

DOWSIL™ 791 Weatherproofing Silicone Sealant

A premium performance weatherproofing sealant, DOWSIL™ 791 Weatherproofing Silicone Sealant is suitable for the weathersealing of structurally glazed facades, bolted glass systems and general glazing and building facades constructed of brick, stone and traditional building products. With excellent weatherability and UV resistance, it is ideal for expansion, connection, perimeter and all other types of movement joints.

About Quality Bond™

Quality Bond™ lifts silicone sealing and bonding to the highest level through the instigation of standards of best practices in quality control, quality assurance and product application by specialist silicone fabricators and applicators. Quality Bond™ allows customers and specifiers to share in Dow’s industry-leading expertise and benefit from our proven global performance track record.

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Dow has sales offices, manufacturing sites and science and technology laboratories around the globe. Find local contact information at consumer.dow.com/ContactUs.