



Crestabond® Shuts The Door on Slow Production Times For New World Doors Ltd

Company Profile - New World Doors

LOCATION : Ballymena, Northern Ireland

- **Leading manufacturer** of exterior and interior UPVC and GRP composite domestic doors.
- Produce a range of doors including their new **all-GRP** Apeer 70 (double rebate, high security door) and Apeer 44 (flush fit alternative to the Diamond range).
- Door skins are bonded to each side of the frame and PU foam is injected into the core.

New World supply to trade companies and have a large number of distributors approved to fit and supply their products. They have a **well established** customer base in **Ireland** and **UK** and now they are looking into their sales growth in Europe and USA.

New World Doors has worked with Scott Bader, investing time and engineering resources into Crystic® Crestabond® to **determine** what **benefits** and **savings** could be made.

A two part polyurethane (PU) adhesive was previously used, which needed **45 minutes** before it could be moved onto the next production stage meaning a **long production time** cycle which has now been **significantly reduced**.



Crestabond Application

Crestabond® M1-05

Now used on 85% of all New World range doors, Crestabond M1-05 has been phased in since mid 2011. It is specified for the key inner sash frame and door skin structural bonding applications **eliminating any distortion** once installed.

- Application
- Using Crestabond **M1-05** to bond **GRP** door skins to **pultruded GRP** or **UPVC** door inner frames
 - GRP or UPVC cut to size profiles to create the rectangular inner sash frame of the door **reducing scrap levels**.
 - **Minimal surface preparation** needed – Pultruded sections are simply abraded and solvent wiped.
 - Automated 10:1 **dispensing machine** used with 20 litre pails **increases speed** of adhesive application.
 - **Cartridges** used for smaller, more **intricate bonding** applications involving 4mm profiles.

- Properties
- Significantly **faster fixture times** selected to increase production, from 16 to 12 minutes for bonding and assembly stages.
 - **Cycle time reduced** by **73%** for UPVC inner sash doors.
 - **One adhesive** for use on all **substrates**.
 - **Faster and better application control** of small adhesive beads when using cartridges in a pneumatic gun achieve **less wastage**.



Benefits/Advantages

- ✓ Entire door designed with same material which eliminates distortion once installed
- ✓ 25% faster cycle times in the bonding and assembly stages
- ✓ No compromise on build quality
- ✓ Better application control of small quantities so less wastage and faster use
- ✓ Major productivity gains and overall lower production costs
- ✓ Tougher, more reliable than PU and other MMA previously used for this application
- ✓ Technology developed and owned by Scott Bader

Customer Quote

“ With Crestabond **M1-05**, due to its significantly **faster fixture time** we have made significant **productivity gains** in our door production. The overall cost benefit analysis is commercially very attractive for the business relative to the price of Crestabond. **Product quality** has definitely **improved**, particularly during colder periods, as Crestabond has proved to be a **tougher, more reliable** and consistent adhesive, which gives few breakages and scrap loss compared with other MMA and polyurethane adhesives previously used for this application. ”

Asa McGillian, Managing Director, New World Limited