

## Case Study:

# John Lennon International Airport, Liverpool, UK



## The Project

The £30 million development of Britain's fastest growing regional airport, Liverpool John Lennon Airport, will enable the facility to handle up to three million passengers a year. The new terminal building features an impressive building-high glass façade on the north land side elevation.

## The Challenge

Public safety and security was the prime consideration, making the north façade's ability to perform under blast conditions a key requirement. These important safety priorities should not impinge on the strong aesthetic impact, which the glazed façade was designed to create. All part of making the new terminal a suitable introduction to Liverpool.

## The Vision

To make John Lennon International Airport an impressive gateway to this world-famous city. The new terminal development, designed by Manchester architect Leach Rhodes Walker, has tripled the previous terminal size to

24,000 square metres and provides check-in and baggage handling facilities. The new check-in hall's most striking feature is a ten metre high structurally glazed façade running the entire length of the north side of the building designed to improve natural light in the full depth of the building.

## The Team

SIAC Construction (UK) Ltd, the contractors responsible for the external envelope of the new terminal building, used blast-enhanced curtain walling from Kawneer with application of the Dow Corning 993 Structural Silicone Sealant carried out on site by MJ Eagle Contracts. The team from Eagles bonded the 1.8m high panels, some of which were up to 2.25 metres wide, to the aluminium sections using Dow Corning 993.

## The Products

To meet the exacting requirements of European standards for structural glazing and to marry architectural design with security and safety, the team specified blast resistant 993 Structural Glazing Sealant from Dow Corning.

City:	Liverpool
Country:	UK
Product:	Dow Corning® 993
Architect:	Leach Rhodes Walker
System:	Kawneer
Fabricator:	M J Eagle Contracts Ltd
Envelope Contractor:	SIAC Construction (UK) Ltd

## The Project:

- A striking building-high glass façade, part of the £30 million development of Britain's fastest growing regional airport, Liverpool John Lennon Airport
- The façade's ability to perform under blast conditions was a prime consideration
- 1.8m high panels, some up to 2.25 metres wide, bonded to the aluminium sections using Dow Corning 993
- Dow Corning 993 has been developed and tested to the draft requirements of the European Standard for *Explosion Resistance of Windows, Doors and Curtain Walls*

## Dow Corning 993 Silicone Structural Glazing Sealant

A two part, neutral curing silicone sealant specifically developed for the structural bonding of glass and metal including coated, enamelled, and reflective glass, 993 has excellent weathering properties and high resistance to ultra-violet radiation, heat, and humidity once cured.

Dow Corning 993 Structural Silicone Sealant has been developed and tested to the draft requirements of the European Standard for *Explosion Resistance of Windows, Doors and Curtain Walls*, making it specially suited for use in structural glazing within explosion-resistant windows.

**Contact Dow Corning...**

Dow Corning has sales offices, manufacturing sites, as well as science and technology laboratories around the globe. Telephone numbers of locations near you are available on the world wide web at [www.dowcorning.com](http://www.dowcorning.com), or by calling one of our primary locations listed below.

**UNITED KINGDOM, EIRE, NORDIC COUNTRIES, BENELUX, SOUTH AFRICA, MIDDLE EAST**

Dow Corning Ltd  
Meriden Business Park  
Copse Drive  
Allesley, Coventry, CV5 9RG, UK  
Tel: +44 (0)1676 528 000 · Fax: +44 (0)1676 528 001

**AUSTRIA, GERMANY, POLAND, SWITZERLAND & EASTERN EUROPE**

Dow Corning GmbH  
Rheingaustrasse 34  
D-65201 Wiesbaden, Germany  
Tel: +49 (0)611 23 71 · Fax: +49 (0)611 237 603

**FRANCE AND NORTH AFRICA**

Dow Corning France S.A.  
Le Britannia 20, Boulevard Eugene Deruelle  
69432 Lyon, Cedex 3, France  
Tel: +33 (0)4 72 84 13 83 · Fax: +33 (0)4 72 84 13 79

**SPAIN & PORTUGAL**

Dow Corning Iberica S.A.  
Diagonal 613 5a planta  
08028 Barcelona, Spain  
Tel: +34 93 363 69 28 · Fax: +34 93 363 69 01

**ITALY & EASTERN MEDITERRANEAN COUNTRIES**

Dow Corning S.p.A.  
Via Lombardia, 31/33  
20098 - Sesto Ulteriano  
Milan, Italy  
Tel: +39 02 98 832 1 · Fax: +39 02 98 804 83

**RUSSIA & CIS**

Dow Corning GmbH  
Representative Office  
17/23 Taganskaya Street  
Moscow 109147, Russia  
Tel.: +7 095 783 66 48  
Fax: +7 095 783 66 52

**e-mail:** [construction.marketing@dowcorning.com](mailto:construction.marketing@dowcorning.com)

**LIMITED WARRANTY INFORMATION - PLEASE READ CAREFULLY**

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customers' tests to ensure that Dow Corning's products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent. Dow Corning's sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

**DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY. DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.**

Dow Corning is a registered trademark of Dow Corning Corporation.  
*We help you invent the future* is a trademark of Dow Corning Corporation.

© 2004 Dow Corning Corporation. All rights reserved.



*We help you  
invent the future.*™

[www.dowcorning.com](http://www.dowcorning.com)

Form Number: 62-1366-01