ICD
High Performance Coatings

Technical Bulletin #0001R

OPACI-COAT-300®

Date:	**March 24, 1989**
Revision Date:	**August 30, 1999**
Supercedes Date:	**October 16, 1994**
Bulletin Number:	**0001R**
Subject::	**Insulation Compatibility**
	Specifically: Firestone Ridged Insulation
	a.k.a. Therma Gard or T.S.I.

ICD continuously test products that might come in contact with or be installed in close proximity to *OPACI-COAT-300*®.

Polyisocyanurate insulation appears to present a potential problem when mounted behind *OPACI-COAT-300*® coated glass. The insulation is manufactured by Firestone Ridged Insulation (previously known asThermax (Salt Lake City and Denver)) and carries the trade name of Therma Gard or T.S.I. This urethane insulation appears to give off potentially harmful gas vapors which can effect *OPACI-COAT-300*® and perhaps other glass substrates. Therefore, the above insulation is not approved for use with *OPACI-COAT-300*®. Please be aware of this possible problem and pass on this information to your customers.

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Technical Bulletin #0002

OPACI-COAT-300®

Date:	March 24, 1989
Revision Date:	October 21, 1994
Bulletin Number:	0002
Subject::	**IMPORTANCE OF COLOR MATCHING ON PROPER GLASS**

We recently had an incident where 1/4" (6mm) clear float was the medium on which a color match was made. The user then coated 7/32" laminated glass with the color that was developed on clear float.

The color was very badly "off". The laminated was many shades greener than the sample.

Please, always in seeking exact color matches (particularly with light colors) specify exactly or send a sample of the glass on which OPACI-COAT-300® will be used.

Remember also that glass will vary between manufacturers, and even between float plants it will sometimes not be exactly the same.

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Technical Bulletin #0003

OPACI-COAT-300®

Date: March 23, 1998

Revision Date: October 21, 1994

Bulletin Number: 0003

Subject:: **MATCHING OPACI-COAT-300® TO GLAZING ADHESIVES**

When silicone coated spandrels are structurally glazed there is often the need for the silicone coating to match the glazing adhesive so that the cutback edge of the spandrel (that part of the glass which has not been coated) will not be a different color when viewed from the outside.

When the spandrel is not a reflective or tinted glass there is a greater likelihood that it will appear to have a "frame" around it if the OPACI-COAT-300® and the glazing adhesive do not match.

Although ICD has coating colors that have been formulated to match certain adhesives it has no control over the color consistencies of these products which are manufactured by others.

The recommended procedure would be for ICD to be supplied with a sample of the adhesive that is to be used so that the coating can be matched to it exactly. A sample of the glass or a complete description of it would also be required.

It is always advisable in such cases to build a mock up of the unit with all components that are going to be used so that everyone is assured that everything in its final stage will be as intended.

Please call ICD if you have any questions regarding this type of installation.

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Technical Bulletin #0005

OPACI-COAT-300®

Date: September 10, 1990

Revision Date: April 21, 2006

Bulletin Number: 0005

Subject:: **COMPATIBLE ADHESIVES SPECIFICALLY: LABELING**

Recently a contractor installed some OPACI-COAT-300® coated wall cladding glass with a mirror mastic (solvent based) adhesive with the expected deleterious results. There is a good chance that the contractor was not fully informed about compatibility and that the lites going to the job did not have the required labels. Please make sure this doesn't happen to one of your jobs. Give your glazier copies of the installation information from your Technical Manual, and be sure each lite is labeled. We still are happy to provide labels at our cost. Sample below:

OPACI-COAT-300®
SILICONE COATINGS FOR GLASS

Caution!! Silicone rubber material!!

- Use only compatible neutral silicone sealants such as Dow Corning #795, #895 or #995.
- Do NOT use acid-based sealants!
- Do NOT field attach insulation!
- Do NOT use Mirror Mastic, double faced tapes or Neoprene setting blocks!
- Do NOT use hydro-carbon solvents!
- Gaskets, insulation materials and setting blocks must be compatible!
- Structural glazing must be approved!
- Not recommended for use in Vision Areas!
- For proper viewing methods (Ref: ASTM C1048)!

For further information contact your OPACI-COAT supplier or ICD. 04/06

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Technical Bulletin #7 Primary Application

OPACI-COAT-300®

Date: **May 19, 1992**

Revision Date: **October 21, 1994**

Bulletin Number: **0007**

Subject:: **PRIMARY APPLICATION**

- OPACI-COAT-300® is a colored water-borne silicone coating that cures as an elastomeric film.
- The coating is applied to the second surface of clear, tinted, reflective and high performance glass surfaces.
- The colors are designed to match, contrast or harmonize with vision glasses.
- The primary application of OPACI-COAT-300® is in non-vision areas.
- It is suitable for spandrel lites as well as interior decorative glazing.
- OPACI-COAT-300® requires a dark background for total opacity.
- OPACI-COAT-300® is NOT recommended for vision areas where diffused light may be a concern.

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Technical Bulletin #0009

OPACI-COAT-300®

Date:	**August 30, 1999**
Revision Date:	**N/A**
Bulletin Number:	**0009**
Subject::	**Vacuum Lifting Cups**

ICD continuously test products that might come in contact with or be installed in close proximity to *OPACI-COAT-300®*.

DO NOT USE VACUUM LIFTING CUPS ON COATING!

The use of vacuum lifting cups in direct contact with OPACI-COAT-300® can cause staining in the silicone coating. This is due to the rubber used in the cups. The staining is especially obvious in the mid to light range of colors.

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Technical Bulletin #0010

OPACI-COAT-300®

Date: May 24, 1999

Revision Date: September 25, 2001

Bulletin Number: 0010

Subject:: **OPACI-COAT-300® and low-e in an IG unit**

This update is in regards to the use of OPACI-COAT-300® in specific insulated glass applications.

It has been found that when using OPACI-COAT-300® on the #3 surface with Low-E on the #2 surface of the IG unit that a haze or discoloration may occur.

OPACI-COAT-300® has been used on #3 and #4 surfaces of IG units for over a decade with excellent results on all substrates. This appears to be an application specific problem when using Low-E glass. The use of Low-E glass in the spandrel area is unusual, however, occasionally a designer will choose.

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High Performance Coatings

Technical Bulletin #0011

OPACI-COAT-300®

Date: May 29, 1999

Revision Date: September 29, 2001

Bulletin Number: 0011

Subject:: OPACI-COAT-300®

Structural Glazing

It is now possible to perform two-sided structural glazing without edge deletion of glass coated with OPACI-COAT-300®.

- Dow Corning has completed adhesion testing with Dow Corning® 995 Silicone Structural Adhesive. The tests performed indicate that the sealant has acceptable adhesion to be approved for structural application in contact with OPACI-COAT-300®.
- Dow Corning will approve the use of Dow Corning® 995 Silicone Structural Adhesive for adhesion to glass coated with ICD's OPACI-COAT-300® on jobs where project specific adhesion testing has been successfully completed. As on other substrates (metal or glass) Dow Corning only warrants adhesion of the sealant onto the spandrel coating.
- ICD warrants OPACI-COAT-300® adhesion to glass when OPACI-COAT-300® has been applied by certified Approved Factory Fabricators.
- Successful testing of compatibility and adhesion must have been completed for warranty to apply.
- The accompanying information is for your review. Generally, the glazing contractor would be responsible for component submittal to Dow Corning.

Please contact ICD with any questions that you may have.

Please refer to Technical Bulletin #0012 and #0013

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Structural Glazing

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Structural Approval Process

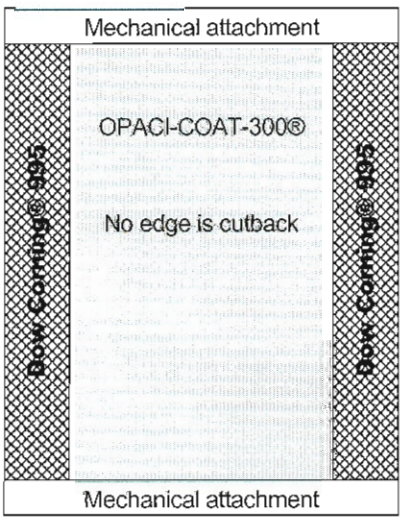
The system must be an approved structural system. All sub-components must be submitted through the local Dow Corning testing facility. For warranties Dow Corning testing must be performed. For any questions regarding this information, please contact ICD. Normal compatibility testing will still be directed to ICD.

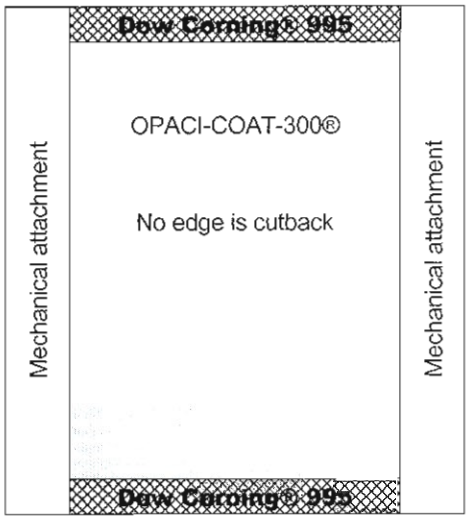
Structural Definition

- When two sides of glass have mechanical captivation, OPACI-COAT-300® will not require cutbacks.

Structural Glazing Methods

Two Sided Structural – No Cutbacks





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Technical Bulletin #12

OPACI-COAT-300®

Date:	September 25, 2001
Revision Date:	NA
Bulletin Number:	12
Subject:	**Proper cure of silicones**

ICD performs compatibility tests on many sealants and adhesives, as a service to architects and AFF's. Each individual material is applied, cured and tested with ICD products. For example, we approve of Dow Corning 795 and we also approve Dow Corning 1199 for use with ICD silicones. These products are tested individually and not in conjunction with multiple sealants. The resulting test combinations would be endless. It is then important to consult each sealant manufacturer for compatibility information between sealants and other materials.

A good rule of thumb, if one sealant is used to attach wall cladding in the recommended ICD methods, some time should pass for cure of the attaching sealant prior to the addition of a perimeter sealant. Not all silicones, spandrels or sealants, have the same chemistry. There are instances where using two incompatible silicones will result in a reaction that can harm the spandrel silicone and or the sealants. Above all, consult each material manufacturer prior to starting any job.

It is important for installation contractors to consult with adhesive/sealant suppliers for proper use.

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Technical Bulletin #0013

OPACI-COAT-300®

Date:	November 18, 2003
Revision Date:	NA
Bulletin Number:	0013
Subject:	**Jobsite Protection of Coated Glass**

Once architectural glass products have arrived on the job site, proper storage methods can help to insure protection from damage caused by prolonged exposure to moisture, construction site dust and debris, caustic chemicals, and exposure to other construction chemicals and activities. Improper storage and handling can lead to damage of any architectural glass product including spandrel glass products. As well, failure to follow these instructions may void an ICD AFF Warranty on the project.

New Release: The Glass Association of North America (GANA) recently issued a Glass Information Bulletin (TD-03-1003), of which is attached to this Technical Bulletin.

"GANA TD-03-1003: *Construction Site Protection of Architectural Glass; Steps must be taken to Avoid Permanent Damage to Glass.*"

ICD's Handling Guide refers to proper fabrication, shipping and handling, as well as proper installation procedures. The handling guide is a part of all start-up and certification training required and provided by ICD.

Please consult ICD for specific job site storage recommendations specific to **OPACI-COAT300®** coated spandrel glass.

Remedy:

Open Storage: Over wrap with water-proof material.

Cased Goods: Line case with APPROVED barrier material.

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Technical Bulletin #14

OPACI-COAT-300®

Date: August 2, 2006

Revision Date: 7/21/06 4/21/06

Bulletin Number: #14

Subject:: **Color Matching Guide**

When a sample order is placed, it is ICD's standard procedure to inquire as to whether the project is for an exterior application or an interior application.

ICD color matching personnel follow very strict restrictions on exterior application formulas. There are no exceptions. These same restrictions apply to those AFF fabricators who utilize the ICD Primary Color Program.

There is a group of primary colors that may never be used in an exterior application. There is a group of primary colors that may not exceed 20% White 9401 in an exterior application.

Exterior: The following group of primary colors may be utilized with ***any amount of 0-9401 White:***

0-9401 White	2-9423 Inorganic Green #5
5-9451 Red Oxide 214M	5-9452 Red Ro
6-9462 Inorganic Blue #214	7-9472 Inorganic Yellow Lt 7G
7-9471 Yellow Oxide 1075A	1-9412 Black
5-9551 Bright Red	6-9561 Phthalo Blue
2-9521 Phthalo Green	

Exterior: 7-9571 Bright Yellow and 9-9592 Quinacridone Violet may NEVER be used in any exterior application formula.

Interior: Every color in any combination with any amount of 0-9401 White may be utilized.

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APPROVED SEALANTS & MATERIALS

Bostik	3190
Boss Products	Boss 396
CR Laurence	RTV408
Dap	230 Sealant
Dow Corning®	799 Clear
Dow Corning®	795
Dow Corning®	983 (2 part)
Dow Corning®	982 (2 part)
Dow Corning®	995
Dow Corning®	797 (European equal to 795)
Dow Corning®	793 and 793T (Asian version of 795)
GE Silproof	2000
GE GESIL	N 2600
NPC	Solar Seal #900
NPC	Silicone Construction Sealant
Pecora Corp	864 Silicone
Pecora Corp	895 Silicone
PRC	4400 2-part Silicone
PTI	Architectural Sealant #707
PTI	Architectural Sealant #738
PTI	Acrylic Plus Sealant #767
PTI	Butyl Sealant #757
PTI	Sealant T360-626
Rhone Poulene	Rhodosil 5C
Rhone Poulene	Rhodosil 3B
Tremco	Spectrum 2

- The above sealants are approved to be compatible and may be in contact with OPACI-COAT-300®.
- Note: Do not use neoprene gaskets or setting blocks.

ICD cannot be held responsible for changes in formulation that may significantly alter the chemical make up of the above material.

Consult each sealant manufacturer for compatibility information between sealants and other materials. Please refer to Technical Bulletin #0012 "Proper Cure of Silicones".

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APPROVED GASKETS AND TAPES

3-M	Double Sided Tape	4462-B
3-M	Double Sided Tape	9731
3-M	Double Sided Tape	4932
Central Plastic	Santaprene Blocks	201-87
Clean Seal	Silicone Rubber	8556P-SP
CR Laurence	T Bond II Tape	V221212
CR Laurence	PHS Styrene Shims	
Custom Extruder	Glazing Tape	799
General Sealants	Gaskets	GS #4 Gray
General Sealants	Gaskets	GS #1500
Morton Thiokol	PIB	T-850
Norton	Thermalbond Tape	V2200
Norton	Glazing Tape	V-788
Tremco	Shim Tape	440 Preshim
Tremco	Glazing Tape	SST800
Tremco	Swiggle Strip	
Valley Ind. Plastic	Bond Breaker	VIP #40
Valley Ind. Plastic	Bond Breaker	VIP #531
Valley Ind. Plastic	Thermal Foam D/C Tape	VIP #4070 ¼" VIP #3070 3/8"
Venture Tape	Polyethylene Vinyl Tape	

The above tapes and gaskets are approved for compatibility and may be in contact with OPACI-COAT-300®.

Note: Do not use neoprene gaskets or setting blocks.

ICD cannot be held responsible for changes in formulation that may significantly alter the chemical make up of the above material.

Consult each sealant manufacturer for compatibility information between sealants and other materials. Please refer to Technical Bulletin #0012 "Proper Cure of Silicones".

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Technical Bulletin #11 OPACI-COAT-300® Structural Glazing

OPACI-COAT-300®

Date: **May 29, 1999**

Revision Date: **September 29, 2001**

Bulletin Number: **0011**

Subject:: **OPACI-COAT-300®**

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Please contact ICD with any questions that you may have.

Please refer to Technical Bulletin #0012

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Structural Glazing Methods

Two Sided Structural – No Cutbacks