



**INSULCOOL™**  
DOUBLE GLAZING

## Technical specification for glazing

**This document contains important information on the correct glazing specifications for InsulCool Double Glazed units. Failure to comply with these specifications will void the Cooling Brothers warranty and severely limit any liability Cooling Brothers may have for the product.**

Insulating Glass Units shall be installed in accordance with the glazing requirements of AS/NZS 4666:2000 unless otherwise specified.

Depth of Rebate – minimum depth of rebate should be 20mm.

Minimum Glazing Dimensions – for conventional framing system:

- (a) Edge Clearance – not less than 6mm;
- (b) Face Clearance – not less than 5mm;
- (c) Edge Cover – not less than 14mm.

### Glazing Blocks

Glazing blocks made of Polyethylene "PE" or Poly propylene "PP" are recommended. Blocks made of polyamide (reinforced with fiber glass) may also be used. Aromatic synthetic material is to be avoided, e.g. polystyrene "PS", acryle butadienstyrole copolymer "ABS" or any other polyblends or copolymers. The use of blocks made of PVC must also be avoided due to the risk of plasticizer migration. No plasticiser containing layers (no rubber, EPDM based glazing blocks or layer) may be used on glazing blocks.

The minimum width of each setting block shall be not less than 3mm greater than the unit and setting blocks shall be located to equally support all panes of glass and shall be fixed to prevent displacement during installation and service.

The size, number and location of setting / location blocks and distance pieces shall be in accordance with AS/NZS 4666:2000.

### Structural Glazing

Structural sealant used as a secondary seal in DGU must be specified for structural glazing when placing the order. Dow Corning® 982 two-part silicone sealant is used as a secondary seal in InsulCool DGUs for structural glazing applications. The uses of the following one-part silicone sealants are recommended for weathersealing DGU glass butt joints and structural glazing. Any other types of sealants must be checked for compatibility with the components of DGUs and approved by an authorised representative of Cooling Brothers (see note 3 below on "Compatibility test").

Weather Sealants<sup>1</sup>: Dow Corning 991 Silicone High Performance Sealant  
Dow Corning 995 Silicone Structural Glazing Sealant

Structural Glazing<sup>1</sup>: Dow Corning 995 Silicone Structural Glazing Sealant

The structural joint shall be designed in relation to the required movement absorption and sealant properties as per recommendations of the sealant manufacturer. Closed-cell PE beads are recommended to be used as backing material (backer rod), as used for window / wall joints.

Effective November 1st, 2013

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**Cooling Brothers**  
GLASS COMPANY

## Technical specification for glazing continued

### Edge Deflection of DGU

The edge deflection of the unit shall meet the requirements of AS 2047 as summarised below:

- (a) Housing – no greater than span/150
- (b) Residential Building - no greater than span/180
- (c) Commercial Building - no greater than span/250

Recommended Glazing Details – Refer to page 3

### Notes:

1. Considerable research has been devoted to finding sealants which are compatible with InsulCool DGU's. The process has involved extensive testing to ensure the sealants do not compromise the integrity or aesthetics of the DGU. This process has identified a sealant which is locally available.
2. Cooling Brothers will not be responsible for any loss or damage of any kind that may arise as a result of a failure to comply with these specifications.
3. Compatibility Test: two cartridges of the proposed sealant must be submitted for testing. The test results will be available in 20 weeks from the date of submission.
4. Incompatible sealants and glazing blocks will void the warranty.

Effective November 1st, 2013

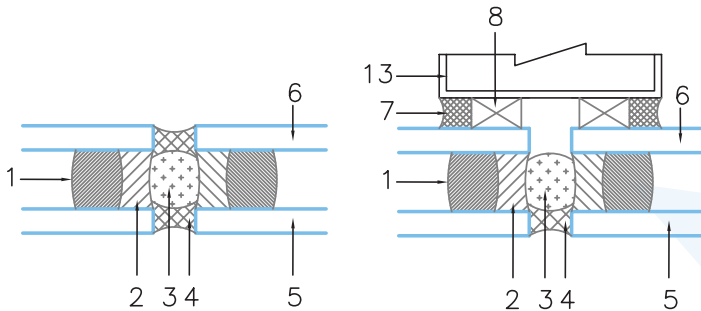
Cooling Brothers Glass Company Pty Ltd

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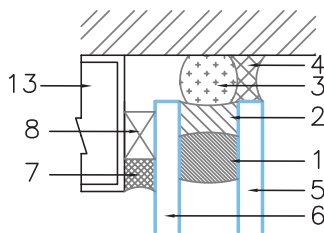
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# Typical InsulCool glazing details

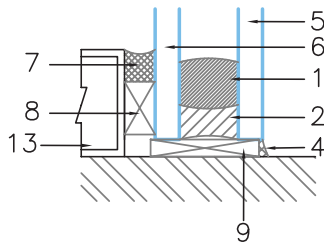
## TYPICAL STRUCTURAL GLAZING DETAILS



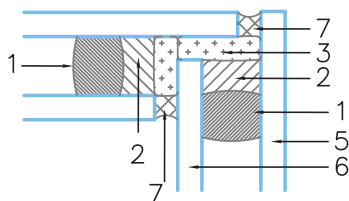
BUTT JOINTS



HEAD / JAMB

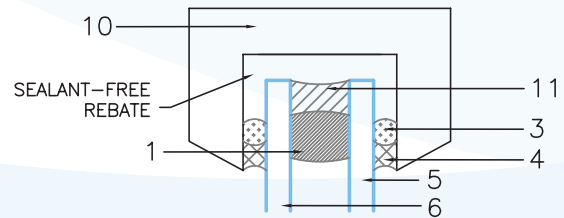


SILL

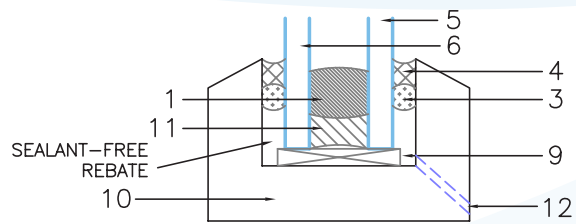


CORNER JOINT

## TYPICAL FRAME DETAILS



HEAD / JAMB



SILL

1. Black Spacer
2. Secondary Seal (Dow Corning 982)
3. Backer Rod (Closed-Cell PE recommended)
4. Weather Seal (DC991 & DC995 recommended)
5. Outer Pane
6. Inner Pane
7. Structural Sealant (DC995 Recommended)
8. Spacer Block
9. Setting Block
10. Window Frame
11. Secondary Seal (GD116-Polysulphide)
12. Weep Hole
13. Support Framing

Notes:

1. This drawing shall be read in conjunction with InsulCool DGU Technical specification for glazing
2. In general, sealants are not to be used to secure glazing blocks in sealant free rebate.
3. All materials used for glazing must be checked for compatibility with the components of DGU.
4. Incompatible sealants and glazing blocks will void the warranty.

Warranty effective November 1st, 2013

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