

deceuninck®

Additional Guidelines for the manufacture and installation of **non-white** windows and doors

07/08



The manufacturing / installation instructions of non-white Deceuninck products are not limited to those that can be found in this document. Further instructions/recommendations can be found in the Deceuninck manufacturing guides and should be read in conjunction with this document. Moreover Deceuninck recommends that the user familiarises themselves with the latest versions of the following standards and Codes of Practice:-

- *B S 7412: Specification for windows and doorsets made from unplasticised polyvinyl chloride (PVC-U).*
- *B S 8214-4: Windows, doors and rooflights. Code of Practice for the survey and installation of windows and external doorsets.*
- *323/1- B P F code of practice for the reinforcement of high impact modified PVC Windows and Doors.*
- *355/1- B P F code of Practice For Infill panels for doors and windows*

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1. Ordering:

1.1 Coloured and foiled profiles are available in a wide range of finishes etc; the chosen finish can generally be applied to either one or both visible surfaces depending on the application. Therefore care should be taken when ordering to ensure that the correct order codes are applied e.g.

Golden Oak is ref: 110

Rosewood is ref: 111

1.2 This Diagram is a guide to the application and order codes for foiled products

(See Drg Figure 1)

Side 1

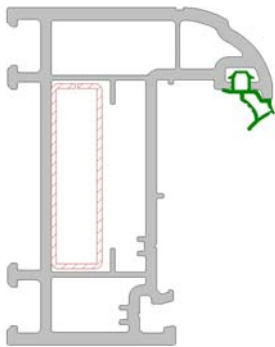


Fig 1.

Side 2

Therefore to order the profile P2832 (with a Golden Oak Foil) shown, for the small face side 2 to be foiled the code would be P2832 2110, for the profile to be foiled on the large side 1 the code would be P2832 1110, and finally for the profile to be foiled both sides the code would be P2832 3110.

For accessories: 1xxx and or 3xxx are available, should you need to know the extent of the foil please contact Deceuninck Technical department.

1.3 Please note that when ordering profile for example, a typical internally beaded top over fixed window, foiled on the external face only, the order must contain some outer frame profile foiled on side 1 and some on side 2 in order to accommodate the Reverse Butt Weld joint (See Drg Figure 2)

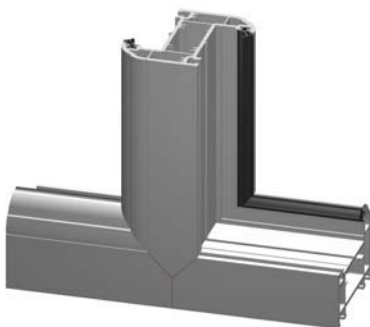


Fig 2

2. Packing

- 2.1 The main frame foiled profiles are individually taped and wrapped to ensure that they are received in good condition.
- 2.2 Main Profiles = per length 6m
Accessories = quantity per pack can vary from the white product

3. Storage Prior to Manufacture

- 3.1 It is recommended that non-white/foiled profiles should be stored inside and not come into contact with direct sunlight. This can cause problems with heat build-up due to the wrapping and result in distortion of the profile length due to the absence of reinforcement at this stage. Prolonged exposure to sunlight can also have a negative effect on the properties of the protective tape and make it difficult to remove.
- 3.2 During storage the profile should be supported horizontally at a maximum of 1000mm centres and the racking arms should be covered with suitable material so as not to damage the profile when removed from the racking.
- 3.3 Profiles should not be stacked more than 10 high on top of each other.
- 3.4 All profiles should be stored in dry conditions at approx 15–18 Centigrade for a minimum of 12 hours prior to use.
- 3.5 The tube wrapping around the profile should be loosened to allow air to circulate and the profile, to become fully conditioned ready for fabrication.
- 3.6 Profiles should be lifted from the racking NOT dragged so as to prevent any damage.

4. Cutting

- 4.1 We strongly advise that the first 50mm of each end of the coloured profile length is discarded, this will reduce the risk of delamination.
- 4.2 Please ensure that the bed of the saw is cleaned of all swarf etc prior to cutting non white or foiled profiles.

5. Drainage and Decompression

- 5.1 Drainage and Decompression holes / slots are an essential function of the window or door, and must always be carried out in both the sashes and outerframe as per Deceuninck's published Technical information; please refer to the main Fabrication manuals of the 2500/2800/3000 series for full details.

6. Heat release provision

- 6.1 All foiled and non white profiles, especially the darker colours achieve higher temperatures due to solar radiation.

Depending on the colour and the type of colour finishing (Decoroc or Foiling) you can expect temperatures from 50 to 70 C

E.g. Golden Oak = 67 C Compared with 45C for white profiles under the most extreme climatic conditions in the UK.

Therefore non white and foiled profiles could be subject to more distortion than white profiles when subjected to direct sunlight.

6.2 To prevent the internal chambers of the profile from retaining heat they should be ventilated by the provision of Drainage and Vent slots/holes top and bottom . (Refer to Drg Figs 3a and 3b)

6.3 Please note: Fabricators using 5mm slots should be aware that when fabricating the 2800 series not all internal chambers are broken into when Draining and Venting, therefore additional manual operations may be necessary to ventilate those chambers

6.4 Failure to provide these heat release holes, may in some cases result in the profile becoming distorted due to the resulted expansion and overheating of the internal chambers, and therefore may invalidate Deceuninck's guarantee.

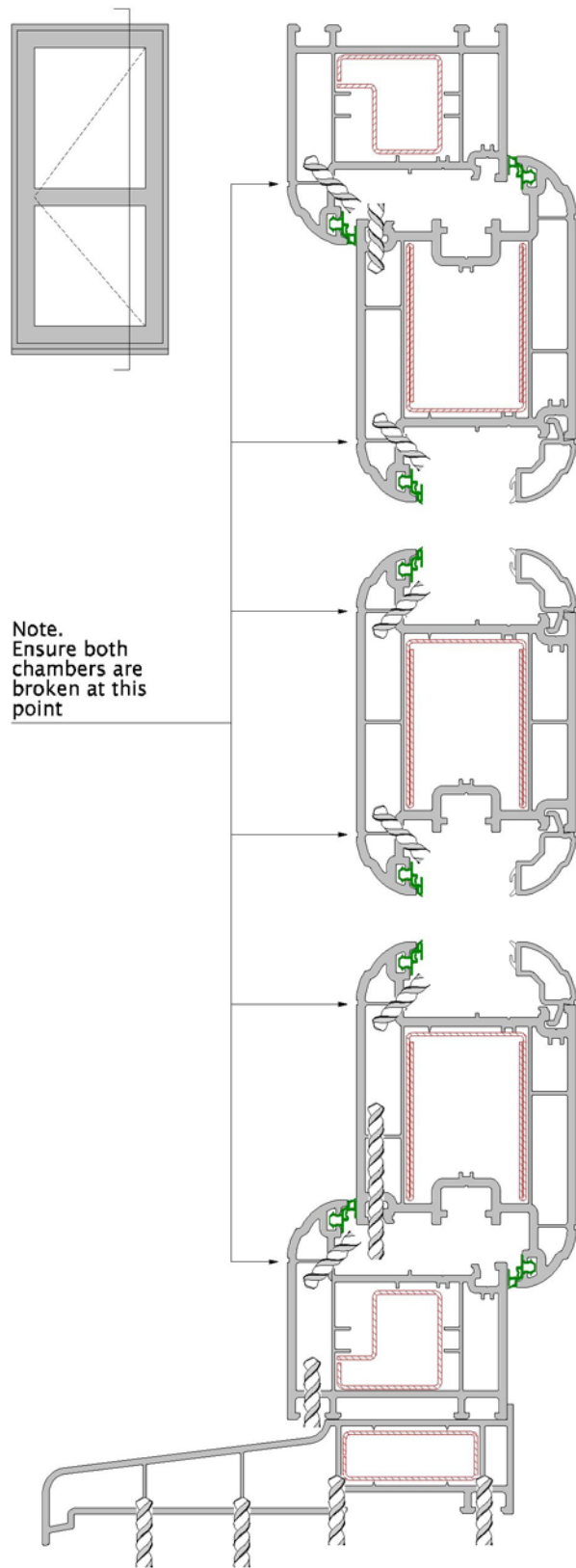


Figure 3a

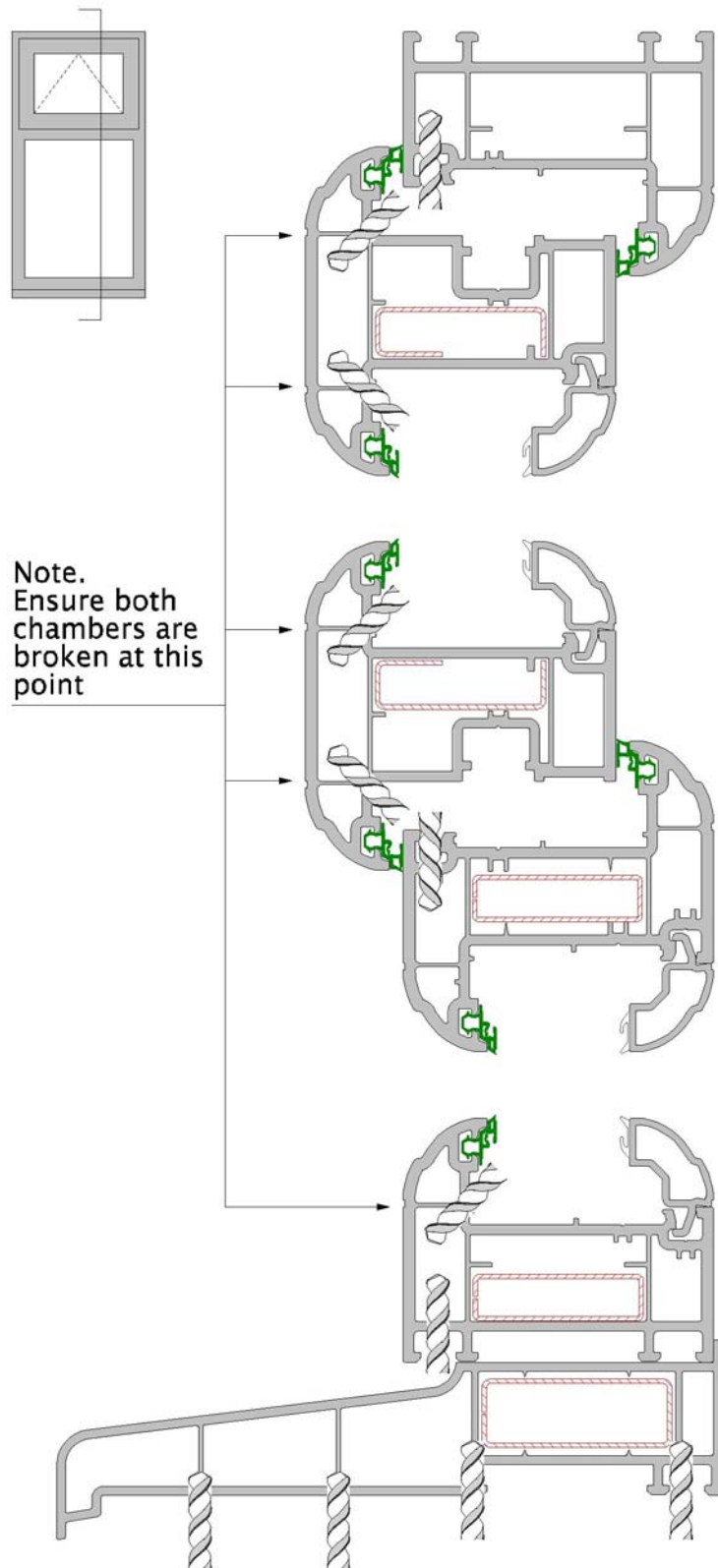


Figure 3b

7. Reinforcement

7.1 The Recommendations set out below are general guidelines for non-white / foiled profiles, for specific wind load requirements please contact the Deceuninck technical department for advice.

7.2 The common reasons that Deceuninck PVC-U windows are reinforced are, but not limited to the following :-

- To prevent excessive deflection due to wind load
- To help control the deformation of the profile due to temperature changes
- To enhance security
- To assist in maintaining straightness of profile
- To prevent excessive deflection due to glass weight
- To assist in transportation
- To assist in installation.
- To provide local support for hardware and mechanical joints fixings

The particular window size, style, and application as well as the individual system used will determine which, if any of the above conditions apply.

7.3 Reinforcement shall be installed so that it does not move or rattle when the window is in use. Design calculations assume that the reinforcement is continuous within the profile, in some manufacturing practices there may be advantages in limiting the length to a proportion of the profile length (batch cutting to preferred lengths). When the profile is of a non white or foiled variety this is not permitted and reinforcement should always be cut to size and no more than 5-10mm back from the weld.

7.4 Deceuninck recommends that **ALL** non white profiles are reinforced regardless of size with the reinforcement specified in the relevant manufacturing guide.

7.5 The use of two partial lengths of reinforcement either side of some obstruction in the profile such as a lock case or welded cruciform, results in a hinging effect under load **AND MUST BE AVOIDED**. Deceuninck has the following range of prepped / punched reinforcement to enable a continuous length of steel to be inserted **P3218** for **P3046/3064/3066**, **P3208** for **3047/3065/3067**, **P3228** for **3042/3060/3062**, **P3225** for **3049**, **P2843** for **2534/2825/2826**, **P2543**, **P2843** for **2530/2531/2830/2831**.

In the case of a cruciform joint, one length of reinforcement must be continuous.

7.6 Deceuninck recommends the use of its own reinforcement, In the case of non-white/foiled profiles **ONLY REINFORCEMENT SUPPLIED BY DECEUNINCK MUST BE USED**. By not using Deceuninck specified reinforcements could invalidate your guarantee.

7.7 All reinforcements should be screw fixed in accordance with Deceunincks published technical data and at centres not exceeding 300mm and no more than 100mm from corners. A minimum of 2 fixings should always be used.

7.8 It is imperative that these reinforcing recommendations are read in conjunction with Deceunincks relevant manufacturing guide for 2500/2800/3000

8. Welding

- 8.1 Please refer to Deceuninck's Published Technical data for full and detailed guide regarding welding.
- 8.2 Ensure that Teflon is thoroughly cleaned before switching between different coloured Profiles to avoid cross contamination.
- 8.3 Deceuninck recommends that the sprue restriction should be between 1– 2mm. A sprue restricted to less than 1mm may reduce weld strength.

9. Corner and Joint Finishing

- 9.1 Deceuninck recommends a knifed finish on all foiled and non white products. Shadow Grooving may result in the delamination of the foiled surface.
- 9.2 Deceuninck recommends a minimum of 5 minutes between welding and corner cleaning; this will reduce the possibility of the foil being damaged.
- 9.3 The completed joint should be finished with a pen or spray cans (P373–P370)

10. Glazing

- 10.1 Please refer to Deceuninck's published technical data within our manufacturing guides for a guide to good glazing practice. More detailed recommendations may be obtained by referring to the latest version of BS 6262.
- 10.2 The use of non white or foiled glazing beads with white main frame is prohibited, in addition the use of external (i.e. beads on the outside) non-white glazing beads is not Recommended.

11. Composite door Panels

- 11.1 The use of foiled or dark coloured Composite door panels is becoming popular and there is a large choice in the market place that can be supplied to match the Deceuninck Profile e.g. Rose wood and Golden Oak etc
- 11.2 These panels can represent a considerable area and if installed in a south facing location can be subject to considerable solar gain, with the resulting expansion and contraction.
- 11.3 Deceuninck would strongly suggest that the fabricator should contact the supplier of the composite panel in order to seek their guidance as to (A) most suitable specification for the panel and (B) best installation practise .

12. Cills

12.1 Non- white/foiled cills should always be fully reinforced

12.2 Non white/foiled cills should be ventilated using one of the methods shown on the Drg (Figure 4) below. Ventilation slots/holes must be provided every 1000–1200mm with a Minimum of 2 per length.

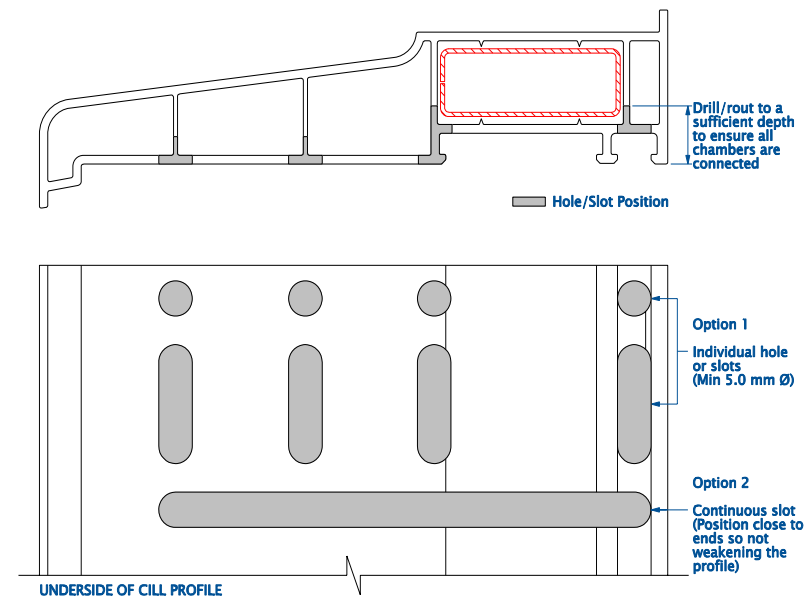


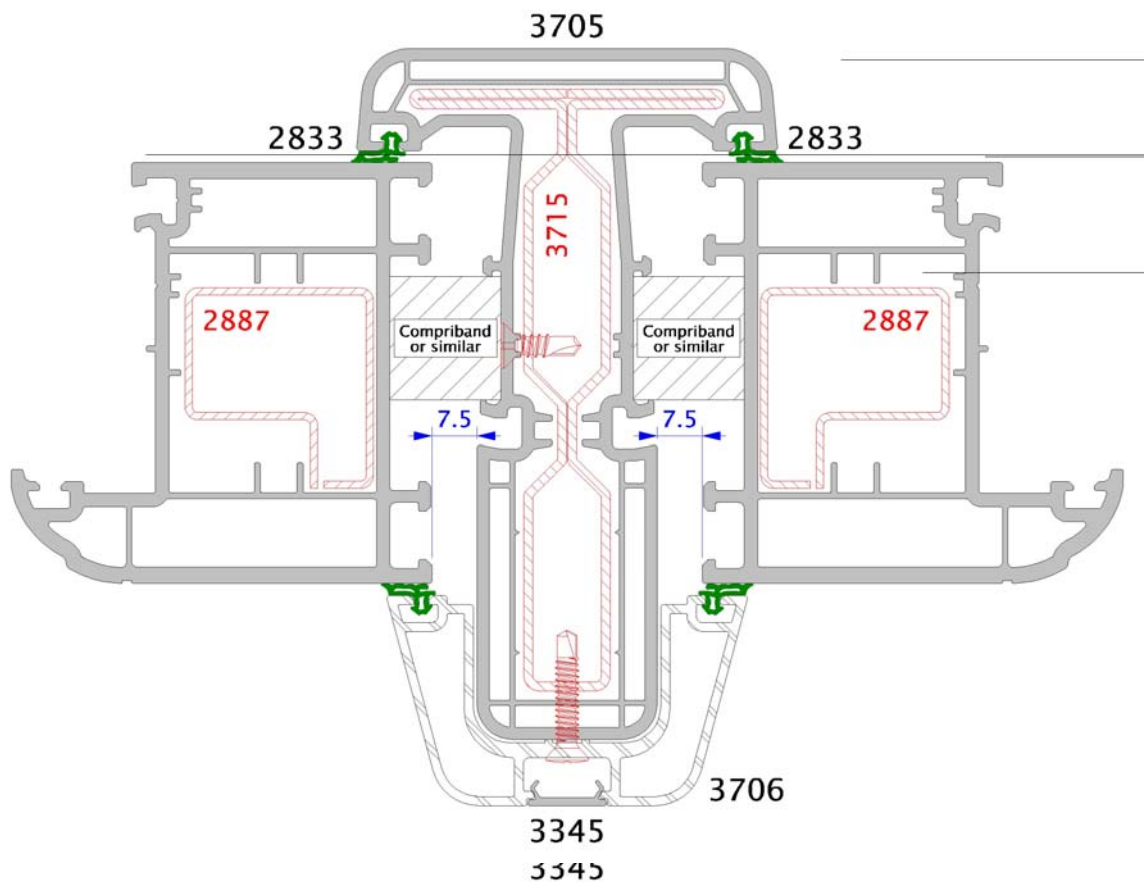
Figure 4

13. Combination Frames /Coupling

13.1 Non white frames should not exceed 2 metres in any direction without the use of a dedicated expansion joint. This can be achieved by using coupling section 3705 (see drawing showing 3705) below and table showing expansion.

13.2 Please note, that non white residential doors where large outer frame is used may be fabricated up to a maximum of 2500mm in height however sidelights should always be coupled using a dedicated expansion joint.

Width / Height of frame	Non-White/foiled PVC-U
Up to 2.0m (Windows)	7.5mm
2.0m – 2.5m (Doors)	7.5mm



Compriband 600 or similar expansion tape is available in a range of different sizes from Tremco/illbruck Ltd, Tel 01914190505.

14. Transportation

- 14.1 The transportation of finished non white products glazed or unglazed should be carried out as described in the Deceuninck Technical manuals.
- 14.2 Particular care should be taken when strapping non white frames etc. to the van or lorry so as not to damage the surface finish.

15. Installation

- 15.1 Please refer to Deceuninck published Technical Data regarding installation. Particular attention should be given to the provision of additional expansion around the frames as highlighted in section 13.
- 15.2 Please remove all protective tape after installation

16. Aftercare and Maintenance

- 16.1 Non white profiles can be cleaned with warm soapy water.
- 16.2 Solvent and abrasive cleaners must not be used.
- 16.3 Moving parts such as hinges should be periodically lubricated. Please refer to the hardware manufacturers recommendations.

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