

CI/SfB		Yt4
CAW P22		
Uniclass L675:P743		

## Description

FS500 is a one-part, neutral curing, low modulus, low odour silicone sealant suitable for perimeter joint sealing applications with high movement capability. It has excellent primerless adhesion to multiple surfaces including masonry, brick, aluminium, lead, PVC-U, polycarbonate, polyacrylate, wood, painted wood, glass and glazed surfaces.

## Colours

White, brilliant white, black, anthracite and pine.

## packaging

310 ml cartridge (20 per carton)

## Technical Information

Characteristic	Standard	Classification
Composition		neutral silicone
	EN 15651	EN 15651-1 class 25 LM CC EN 15651-2 class 25 LM CC
Classification	ISO 11600	DIN EN ISO 11600-F-25LM DIN EN ISO 11600-G-25LM
	BS EN 13501-1, section 11.3	Class E
Specific Gravity	BS EN ISO 1183-1 B	Approximately 1.40
Consistency	BS EN ISO 7390 (20 mm)	0 mm, non-sagging
Shore A Hardness	BS EN ISO 868	Approximately 24
Skin Forming Time	at 23°C, 50% RH	Approximately 20- 35 minutes
Cure Rate	at 23°C, 50% RH	Approximately 1- 2 mm /1st day
Volume Shrinkage	BS EN ISO 10563	Approximately 6%
Tensile Strength	BS EN ISO 8339 23°C	Approximately 0.5 N/mm <sup>2</sup>
	DIN 53504 S2	Approximately 1.6 N/mm <sup>2</sup>
Modulus at 100% Elongation	BS EN ISO 8339 23°C	Approximately 0.38 N/mm <sup>2</sup>
Elongation at Break	BS EN ISO 8339 23°C	Approximately 275%
Movement Capability	BS EN ISO 11600	25%
Elastic Recovery	BS EN ISO 7389	Approximately 95%
Application Temperature		+5°C to +40°C
Service Temperature Range (Short Term)		-40°C to +150°C
Storage	Store in shaded dry conditions between +5°C and +25°C	
Shelf Life	12 months when stored as recommended in original unopened containers	

## Necessary Tools

- Cartridge gun and sharp knife.

## Protective Equipment

Use in well ventilated conditions and ensure all recommended protective equipment is worn during handling & use of this product. For full recommendation, refer to safety data sheet.

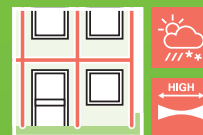
## Priming

- FS500 has excellent primerless adhesion to many typical construction materials. For special situations, or if in doubt, please contact tremco illbruck Technical Services Department to discuss your requirements.



## FS500

### Frame and Façade Silicone



#### Usage / Purpose

FS500 is ideal for use in expansion & curtain wall joints, perimeter joints around windows or doors, panel joints between most common substrates, heel and toe beads, polycarbonate glazing and other general joint sealing applications.

#### Key Benefits

- Meets the requirements of EN ISO 11600 G&F 25LM
- High movement capability
- Long-term resistance to weathering, ageing and extra UV protection
- Low modulus formulation ensures minimum stress at joint faces
- Neutral cure: low odour and non-corrosive
- Modern colour range in low sheen finish
- Easy to tool into place and smooth off

# Frame & Façade Silicone

## Adhesion Table

Bricks, Concrete & Stone	
Brick	+, AT101
Concrete	+, AT101
Natural Stone	
Plaster	
Metals	
Aluminium	+
Aluminium Anodised	+, AT120
Aluminium Powder Coated	+, Test
Brass	
Copper	
Galvanised Steel	+, AT105, AT120
Iron	+, AT105, AT120
Stainless Steel	+, AT105, AT120
Glass	
Glass	+
Plastics	
ABS	+, AT120
Acrylic Glass PMMA	+, AT120
Polyamide*	+, AT120
Polycarbonate*	+, AT120
Polyester GRP	+
PVC Rigid	+, AT105, AT120
PVC Soft Sheet/Film	
Sanitary Acrylic	
Wood	
Wood*	+, Test
Wood Primed*	+, AT120
Wood Painted (acrylic)*	+, AT120
Wood Stained	+, Test
Tiles	
Glazed Tiles	+
Tiles Reverse Side	+, AT101
Unglazed Tiles	+, AT101
Others	
Enamel	+
*Substrates can vary in their surface properties, therefore adhesion tests prior to using are recommended + = good adhesion can normally be expected without primer. Reference numbers (e.g. AT111) show the type of illbruck primer required to improve adhesion. Where there is no result listed according to substrate please contact technical department.	

## Primers & Cleaners Coverage

Coverage below is based on a 500 ml tin applied to a 10 mm deep joint and applied to one side only.

	Maximum lm	Minimum lm
<b>Primer: Non-porous substrates</b>		
AT105	1,147	1,037
AT120	958	867
AT150	1,498	1,356
AT160	1,381	1,249
<b>Primer: Porous substrates</b>		
AT101	484	291
AT140	907	544
<b>Cleaner</b>		
AT115	547	495
AT200	164	148

## Joint Design Considerations

- Joint design to be in accordance with BS 6093.
- Minimum joint width should normally not be less than 5 mm.
- Typical maximum joint width of 30 mm, however for all large joints (greater than 30 mm), please contact tremco illbruck to discuss project specifics.
- Width to depth ratio should typically be 2:1.
- Minimum width to depth ratio should typically be 1:1. Please note MAF is reduced at smaller width to depth ratios.
- The minimum contact area with any substrate (including for fillet joints) should be determined by the quality of the bond. If in doubt please contact tremco illbruck.
- PE backing rod (e.g. illbruck PR102) should be used in all movement joint applications.

## Preparation

- Always carry out a test to confirm compatibility prior to use.
- Surfaces must be clean, free from grease and must be stable and dry.
- For non-porous substrates use cleaner AT200, do preliminary test.
- Use a brush to remove loose particles from joints.
- For plastics and powder coatings, clean with AT115 and conduct preliminary tests to confirm compatibility.

## Joint Backing

- PE Backing rod (e.g. illbruck PR012) is recommended beneath the joint to ensure the sealant is only bonded to two surfaces.

## Application

- Use a good quality sealant gun to expel the sealant consistently. Cut cartridge nozzle to desired aperture.
- Apply sealant slightly proud of desired level, spray on illbruck smoothing agent AA301.
- Tool off immediately using a jointing tool such as AA311. Wipe/wash away excess smoothing agent with clean water to avoid streaking.

## Coverage

Width x Depth (mm)	Linear metres per 310 ml Cartridge
5 x 3	20.7
5 x 5	12.4
8 x 6	6.5
10 x 8	3.9
15 x 10	2.1
20 x 12	1.3
25 x 15	0.8

## Cleaning

Clean tools or sealant spillage immediately with illbruck AT200 Cleaner. Ensure surface is solvent resistant before cleaning. Cured sealant can only be removed mechanically.

**FS500**

## Frame & Façade Silicone



### Please Note

Not suitable for some substrates such as neoprene, butyl rubber, EPDM, bituminous or tar containing surfaces. Contact with bituminous or tar containing surfaces can lead to discolouration and failing adhesion. Not suitable for trafficable joints or areas subject to abrasion. Not suitable for over painting. For safe sealing on natural stone use FA870/FA880. On other sensitive substrates test first.

### Health & Safety Precautions

Safety data sheet must be read and understood before use.



### Technical Service

tremco illbruck has a team of experienced Technical Sales Representatives who provide assistance in the selection and specification of products. For more detailed information, service and advice, please call Customer Services on 01942 251400.

### Guarantee / Warranty

tremco illbruck products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with tremco

illbruck written instructions and (b) in any application recommended by tremco illbruck, but which is proved to be defective, will be replaced free of charge.

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