NCC X-CALIBUR CONSTRUCTION CHEMISTRY

Technical Data Sheet

X-Seal PU25

One part fast curing low modulus polyurethane sealant

Product Description

X-Seal PU25 is a fast-curing one-component moisture-curing polyurethane adhesive sealant that turns into a flexible, durable and resistant elastomeric seal and has a very good adhesion to most industrial materials, without primer such as glass, anodized aluminum, lacquered metal, wood, FRP, and concrete.

Advantages

- Meets SCAQMD Rule 1168 & LEED VOC Limit
- Formaldehyde free
- Suitable for use in food processing areas
- Single component, no mixing required
- Easy to use
- High elasticity
- Excellent tear, vibration and weathering resistance
- Durable resilient seal
- Suitable for a wide variety of substrates
- Non staining
- Short tack free time
- Can withstand foot traffic
- Primer not required for most common substrates.

Uses

- High movement joints
- Construction joints
- Crack sealing
- General purpose joint sealing
- Joint sealing of:
  - Highway structures
  - Precast units
  - Basements
  - Cladding
  - Floors
  - Subways

Movement Accommodation

Butt joints: 25%
Lap joints: 50%

Specification Compliance

BS 4524*
ISO 11600 Class F25LM
ASTM C920, Type S, Grade NS, Class 25
SCAQMD Rule 1168
LEED NC2009 IEQ 4.1
Estidama LBi-2.1
* Performance properties only

Laboratory Test Data

Property	Typical Results
Shore A hardness	>30 after 28 days
Elongation at break	>400%
Stain index	<1

Application Properties

Tack free time	40 mins at 25C/50% RH
Cure depth	2.5mm after 24 hours at 23C and 50%RH
Resistance to flow	<3mm at 23C and 50C
Application temperature	5 to 40C
Service temperature	-20 to 88C

Volatile Organic Content

VOC = <50 g/L

Yield

Joint Dimension mm	Joint length m per sausage (600 ml)
10x10	6
15x10	4
20x10	3
25x12	2
30x15	1,3

Consumption depends on the roughness and absorbency of the substrate.

Colour

Black, grey and white, other colours available subject to minimum order quantity

Packaging

600ml sausages.

Joint Design Considerations

- High movement joints should be designed to allow a sealant width to depth ratio of between 1.5 to 1 and 2:1. (Joints subject to traffic 1:1) .
- In order to allow movement to be accommodated over the full width of the sealant, it must be debonded.
- For maximum performance, joint edges must be primed with the appropriate primer.

Installation Guidelines

NCC X-Calibur provides detailed method statements on all its products for use in various applications. These must be referred to prior to starting work. The information below is a summary intended for guidance only.

Joint Preparation

Joints should be accurately formed. Concrete substrates must be at least 28 days old. Joint edges must be sound, dry and free from any contaminants. Care should be taken to ensure that the joint is formed to the required depth, and any expansion joint filler tightly packed in place.

Priming

Priming is not normally required on good quality substrates for construction and control joints. For expansion joints and joints subjected to high stress or loads, priming is required. Use the following primers:

X-Seal Primer C: Porous substrates
X-Seal Primer G: Non porous substrates

Primer should be applied to the joint sides using a clean, dry paint brush. Work the primer well into the substrate. After application of primer, debond the joint using siliconized debonding tape over the joint filler board. X-Seal PU25 should be applied once the primer is touch dry. If the primer is left to dry longer than 3 hours, the surfaces must be re-primed prior to applying the sealant.

Gun Loading

Use an X-Seal Sealant Gun or similar. Cut one end off the foil sausage and load into the gun with the open end towards the nozzle.

Application

Mask off the area to be sealed to prevent excess sealant from contaminating the facade or concrete surface. Gun the sealant firmly into the joint, making sure that the joint edges have full contact with the sealant. Finish the sealant surface using soapy water and a sealant finishing tool.

Cleaning

Clean equipment using X-Seal Cleaner.

Limitations

Do not dispose of uncured components. Mix and allow to cure first.
Do not apply in rain or wet conditions, or at temperatures below 4C
Do not allow contact with asphalt.
Do not use in immersed conditions until full curing.
Do not expose to aggressive chemicals.

Shelf Life

12 months when stored unopened at below 25C under shade in a dry environment.

Health and Safety

This product is for industrial use only by trained operatives. It is potentially hazardous if not used correctly. Please refer to the Material Safety Data Sheet (MSDS) prior to the purchase and use of this product. The MSDS can be obtained via our website www.ncc.com.eg.

Authorized Technical Specialist

Please note that only NCC X-Calibur Authorized Technical Support Specialists ('ATSs') are permitted to change any of the information in this data sheet or to provide written recommendations concerning the use of this product. Visit www.ncc.com.eg for a full list of NCC X-Calibur ATSs.

Datasheet Validity

NCC X-Calibur makes modifications to its product datasheets on a continuous basis. Please check the datasheet update section on www.ncc.com.eg to ensure you have the latest version.

Warranties

NCC X-Calibur supplies products that comply with the properties shown on the current datasheets. In the unlikely event that products supplied are proved not to comply with these properties, then we will replace the non-compliant product or refund the purchase price. X-Calibur does not warrant or guarantee the installation of the products as it does not have control over the installation or end use of the products. Any suspected defects must be reported to NCC X-Calibur in writing within five working days of being detected.
NCC X-Calibur Construction Chemistry Inc. **makes no warranty as to merchantability or fitness for a particular purpose and this warranty is in lieu of all other warranties express or implied.** NCC X-Calibur Construction Chemistry Inc. shall not be liable for damages of any sort including remote or consequential damages, down time, or delay.