

SabreSeal™ NC45



SabreSeal NC45 is a non-slumping high performance, 100% neutral cure silicone sealant formulated with calcium carbonate filler system. It has excellent resistance to weathering, UV radiation, vibration, moisture, ozone, temperature extremes, airborne pollutants, and many cleaning detergents and solvents. It is a single-component elastomeric sealant that is permanently elastic upon curing and has a movement capability of $\pm 50\%$. SabreSeal NC45 has been developed specifically for sealing aluminium composite panels in external applications that experience high climatic exposure. Its superior adhesion performance and high durability make it well suited for glazing and cladding applications.

Features

- 100% neutral silicone
- $\pm 50\%$ movement capability
- Low VOC
- Excellent primerless adhesion characteristics
- Very high UV and climatic resistance
- Forms a weatherproof seal
- Permanently flexible
- Fast curing and development of strength
- Excellent gunability in a wide range of temperature conditions
- Matt finish

Applications

- Well-suited for a strong weatherproof seal on most common building materials such as glass, aluminium, galvanized and zinc-coated steel, painted surfaces, brick and concrete.
- Widely used to seal external aluminium composite panels.

Technical Data

| | |
|--------------------------------------|-------------------------------------|
| Base | Silicone polymer |
| Curing system | Moisture curing, neutral |
| Specific gravity | 1.34 g/mL |
| Maximum tensile strength (ASTM D412) | 1.1 MPa |
| Elongation at break (ASTM D412) | 500% |
| Movement capability (ASTM C719) | ±50% |
| Shore A hardness (ASTM C661) | 30 |
| Low VOC compliance (ASTM D3960) | Yes |
| VOC content (USEPA Method 24) | 39 grams |
| Tack-Free / Skin-Form Time | 15-20 minutes (at 25 °C & 50% R.H.) |
| Application Temperature | 5 °C - 50 °C |
| Service Temperature | Up to 150 °C |

Applicable Certification

SabreSeal NC45 meets the requirements of:

- ASTM C920 and ASTM C719, Type S, Grade NS, Class 50 , Use NT, M, A & G

Preparation

All surfaces must be clean, dry, and free from dust, oil, rust, grease or any other contamination. Metals should be cleaned with a non-mineral, non-oil based solvent such as Methylated Spirits or Isopropyl Alcohol. Apply solvent to a clean cloth, then use a dry clean cloth to remove excess solvent. For remedial work, remove the existing sealant as much as possible. Some powder coats are very heavily plasticised so it is recommended to scour the surface with a scouring pad to remove the shiny surface. In addition to correct surface cleaning procedures, an adhesion promoter can be used. Sabre Surface Activator is suitable for non-porous surfaces, such as aluminium, glass, most plastics. For porous surfaces such as concrete Sabre Primer PX can be used.

Application Direction

- 1 Cut the tip of the sausage carefully and slip it into the caulking gun.
- 2 Cut the nozzle into an appropriate diameter at an angle of approximately 45° to 60°.
- 3 Place the nozzle into the caulking gun and screw tight.
- 4 Extrude the sealant with a single bead.
- 5 Tool the sealant bead with a clean and dry tool within the working time for a smooth finishing.

Clean Up

- Wet sealants can be cleaned up with acetone or mineral spirits.
- Cured sealants can only be removed mechanically.

Limitations

Not recommended for following applications:

- Structural glazing applications.
- Below waterline or permanent water immersion.
- Traffic areas subject to abrasion.
- Polycarbonate and polyacrylate, if under tension.
- Applications that requires the sealant to be painted.
- Neoprene rubber.

Joint Design

- The specified sealant bead size should be calculated to comply with the compression and extension capabilities of the sealant in relation to the anticipated joint width due to expansion and contraction.
- Generally calculation of the width sealant bead should be computed on the basis of a maximum $\pm 50\%$ movement capability
- Minimum joint depth should not be less than 6 mm to accommodate movement.
- Sealant design joint width-to-depth ratio should be 2:1.

Coverage

| Width | Depth | Coverage (600 ml) * |
|-------|-------|---------------------|
| 6 mm | 6 mm | 15.16 meter |
| 10 mm | 10 mm | 5.46 meter |
| 20 mm | 10 mm | 2.72 meter |
| 25 mm | 12 mm | 1.82 meter |

Packaging & Colours

- 600ml foil pack
- Matt Black • Matt Grey • Matt White

Shelf Life & Storage

12 months. Store in a dry and cool place with temperature below 30 °C.

Caution

Product releases methylethylketoxime during application and curing. May cause an allergic skin reaction. If medical advice is needed, have product container or label at hand. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation. Keep out of reach of children. For further health and safety information, consult the latest safety data sheet.

SabreSeal_NC45_TDS_2405

IMPORTANT NOTICE

Sabre Adhesives Limited makes no warranties, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. User is responsible for determining whether the product is fit for a particular purpose and suitable for user's method of application. Due to the fact that specific substrates, such as: plastics, polycarbonates, etc, may differ from manufacturer to manufacturer we recommend preliminary compatibility tests. Please remember that many factors can affect the use and performance in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a product. Given the variety of factors that can affect the use of our products some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

LIMITATION OF REMEDIES AND LIABILITY

If the product is proved to be defective, the sole remedy shall be to refund the purchase price or to repair or replace the defective product. Sabre shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

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