STONHARD

STONFLEX®MN7

PRODUCT DATA

PRODUCT DESCRIPTION

Stonflex MN7 is a three-component, non-sag, polyurethane sealant. It exhibits excellent flexibility with moderate hardness and good chemical resistance to organic acids, alkalis and most solvents.

USES, APPLICATIONS

Stonflex MN7 can be used in conjunction with all flooring and wall systems in a wide range of applications.

- Vertical joints: isolation, expansion or control
- Thermal shock situations
- Exterior applications

PRODUCT ADVANTAGES

- Long-term abrasion and chemical resistance.
- Excellent bond strength assures good adhesion.
- Non-sag consistency allows easy installation to vertical surfaces.
- Retains physical properties over a wide temperature range (e.g.,-29 to 66°C).
- Factory proportioned packaging ensures consistent, high quality mixing.
- Compatible with all Stonhard floor and wall systems.

PACKAGING

Stonflex MN7 is supplied as a pre-measured unit. Each unit consists of:

1 carton of MP7 containing:
- 2 foil bags of isocyanate (curing agent)
- (2) 1 gallon cans of polyol (resin)

1 carton of MN7 containing:
- 2 pails of Part C (thixotrope)

COVERAGE

Approximately 5736 cm^3 per unit.

STORAGE CONDITIONS

Store both components of Stonflex MN7 between 18 to 30°C in a dry area. Avoid excessive heat. Do not freeze. The shelf life is one year in the original, unopened container.

COLOR

Stonflex MN7 is available in standard colors corresponding to all Stonhard flooring systems. Custom colors are also available.

PHYSICAL CHARACTERISTICS

Working Time (@ 25°C)	40 minutes
Cure Rate (@ 25°C)	12 hours for tack-free surface 24 hours for normal operations
Hardness, Shore A (ASTM D-2240)	50
Tensile Strength (ASTM D-412-80)	1,72 N/mm^2
Percent Elongation (ASTM D-638)	450%
Joint Movement Capability (TT-S-00227E)	+/- 25%
Specification	Stonflex MN7 meets the requirements of a general purpose sealant

Note: The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including binder and filler, were used as test specimens.

SURFACE PREPARATION

The sealant must be adhered to a sound, uncontaminated, dry substrate. The surface must be free of all foreign materials such as paints, oils, waxes, mastic and loose aggregate. Metal surfaces must be free of rust, corrosion, oil, lacquer, grease, etc. Do not apply over asphalt impregnated surfaces. Contaminants may be removed with a heavy-duty industrial detergent (Stonkleen DG9). After scrubbing, flush thoroughly with clean water. Tape all joint edges before proceeding.

PRIMING

After proper surface preparation, Stonflex MN7 will adhere to most surfaces without the use of primer. For questionable substrates, HT Primer is recommended to achieve maximum performance. HT Primer must be tack-free prior to the application of MN7.

BACKING MATERIALS

In deep-jointed areas, sealant penetration should be controlled through the installation of a polyurethane foam rod or polyethylene backer rod. Diameter of the backer rod stock should be one grade larger than the joint width to ensure compression of the backer rod when inserted. Care should be taken to ensure that the backer rod is not punctured.

Where joint design or depth of joint will not permit the use of joint backing, adhesive-backed polyethylene bond breaker tape must be installed. These materials prevent three sided adhesion which allows Stonflex MN7 to perform to specification. **Proper joint dimensions allow for a maximum depth equal to half of the joint width.**

TAPING

Taping should be completed after priming to avoid wicking primer under tape on rough surfaces where bonding may be insufficient. Adjacent areas to the joint should be masked for neatness. Do not put tape on the surface to be sealed.

MIXING

Stonflex MN7 is supplied in pre-measured quantities. Mixing must be achieved by mechanical means. Mechanical mixing should be done using a heavy-duty, slow-speed drill (400 to 600 rpm) with a Jiffy Mixer. Pour contents of Part B into a mixing container and pre-mix to ensure the suspension of solids. Add Part A and mix to a uniform consistency for approximately one minute. Slowly add Part C while continuing to mix at slow speed. Once the Part C is completely added, mix the material for an additional 2 minutes. Avoid high speed mixing that will entrain air bubbles. Thorough mixing of the three components is essential.

> **Note**: Part C is a respiratory irritant and caution should be taken when mixing. Use of a NIOSH/MSHA approved respirator is highly recommended.

APPLYING

Stonflex MN7 sealant should be applied at ambient temperatures of 16 to 30°C and humidity below 80%. This sealant may be applied immediately after mixing. Due to the non-sag nature of the MN7, it must be scooped and pressed into the joint. Perform adequate tooling to ensure complete edge contact. Use a joint finishing tool to smooth the surface. Remove all masking tape immediately after tooling is complete.

CURING

The surface of Stonflex MN7 will be tack-free in 12 hours at 25°C. The area will be ready for normal operations in 24 hours. Ultimate physical characteristics will be achieved in 14 days.

SURFACE TREATMENT

Stonflex Surface Treatment is used to preserve aesthetics over the long-term by reducing dirt pick-up by the Stonflex sealants. This surfactant provides a glossy, dense surface that is resilient, but will not harbor dust, dirt or debris, rendering the joint as easy to clean as the rest of the floor. Stonflex Surface Treatment should be utilized in all applications where Stonflex MN7 will be exposed after the floor installation is completed, especially with Stonlux, Stonblend, and Stonshield systems. One unit contains six 8 ounce jars of Surface Treatment, which is sufficient for use on approximately 0.6 m^1 of 6.35mm. wide joints. The Surface Treatment should be misted onto the surface of the sealant using a spray bottle immediately after all masking has been removed. Questions on the proper use of Surface Treatment should be directed to Stonhard's Technical Service Department.

ACCELERATOR

In low temperature applications 2 to 13°C), Stonflex MP7/MN7 Accelerator is used to aid in curing. The Accelerator (Product #6574D0) is packaged in small glass vials, two of which must be ordered for each unit of MP7/MN7. The Accelerator is added to the polyol and mixed for 60 seconds at room temperature before the joints are to be filled. This material, as well as the isocyanate, must be moved into the cooler area and allowed to come down to temperature before mixing and applying. Once all components have dropped in temperature, the isocyanate is added and mixed for two minutes. Consult Stonhard's Technical Service Department for instruction on proper use of the accelerator.

> **Note**: Depending on the temperature of the area where the material will be used, it may take several hours for the components to cool sufficiently once the accelerator has been added to the polyol. With the addition of the accelerator, working time is significantly reduced depending on the installation conditions and the temperature of the material. Ensure enough manpower is available to install the MP7/MN7 successfully.

RECOMMENDATIONS

- Minimum ambient and surface temperatures are 16°C at the time of application.
- Apply only on clean, sound, properly prepared substrate.
- Application and curing times are dependent upon ambient and surface conditions.
- Do not use water or steam in the vicinity of the application. **Moisture can seriously affect the working time and properties of the material.**

PRECAUTIONS

- Both liquid components are skin and eye irritants – avoid contact. Safety glasses/goggles and impervious gloves are required.
- In case of contact, flush the area with copious amounts of water for 15 minutes and seek medical attention. Wash skin with soap and water.
- Use only with adequate ventilation.

NOTES

- For environments not referenced in the Chemical Resistance Guide, consult Stonhard's Technical Service Department for recommendations.
- Material Safety Data Sheets for Stonflex MN7 are available on line at www.stonhard.com under Tech Info or upon request.
- Requests for technical literature or service can be made through local sales representatives and offices, or corporate offices located worldwide.

CHEMICAL RESISTANCE GUIDE

The purpose of this guide is to aid in determining the potential value of Stonflex MP7 when exposed to the damaging effects of corrosive chemical environments.

RATING CODE

E - Excellent
G - Good
NR - Not Recommended
OS - Suitable for use where "occasional spillages" occur, when flushing with water immediately follows.

ACIDS

RATING		RATING	
Acetic - 5%	E	Hypochlorous - 5%.	E
Acetic - 20%	G	Lactic - up to 20%	G
Acetic - Glacial	OS	Maleic - 30%	G
Benzoic - Sat. 3%	E	Maleic - 40%.	OS
Boric - Sat. 30%	E	Nitric - 10%.	G
Butyric - 10%	OS	Nitric - 30%	OS
Chromic - 10%	G	Oleic	G
Chromic - 20%	OS	Oxalic - Sat.	E
Citric - 50%	E	Perchloric - 35%	G
Cresylic	G	Phosphoric - up to 50%	OS
Diglycolic	G	Picric - Sat	E
Fatty	E	Phthalic	G
Formic - up to 10%	G	Succinic - Sat.	E
Fluoboric	G	Sulfuric - 20%.	E
Heptanoic	G	Sulfuric - 50%.	E
Hydrochloric - 15%	E	Sulfuric - 75%	OS
Hydrochloric - 37%	G	Tannic - Sat.	G
Hydrofluoric - 5%	G	Tartaric - Sat.	E
Hydrofluoric - 10%	OS		

ALKALIES AND SALTS

Stonflex MP7 is rated *Good* to *Excellent* when exposed to most alkalies and salts.

SOLVENTS AND OTHER CHEMICALS

RATING		RATING	
Acetone	NR	Linseed Oil	G
Alcohol (Methyl)	OS	Methyl Ethyl Ketone	NR
Alcohol (Ethyl, Propyl, Isopropyl, Butyl)	G	Methylene Chloride	NR
Benzene	OS	Milk	E
Carbon Tetrachloride	OS	Mineral Spirits	G
Corn Oil	E	Naphtha	OS
Cyclohexane	G	Oils - Cutting	G
Diacetone Alcohol	OS	Oils - Mineral	E
Ethylene Glycol	G	Oils - Vegetables	G
Ether	OS	Perchloroethylene	OS
Formaldehyde	G	Skydrol	OS
Gasoline	E	Sucrose (Sugar) - Sat.	E
Glycerine	E	Toluene	OS
Hydrogen Peroxide to 10%	G	Trichloroethylene	NR
JP5 Jet Fuel	G	Urea	G
Juices - Fruit	E	Vinegar (Household)	G
Juices - Vegetable	E	Water	E
Lard	G	Xylene	OS

Note: This data is based on laboratory tests performed under carefully controlled conditions. (All solutions are at ambient temperatures, 22°C) No warranty can be expressed or implied regarding the accuracy of this information as it applies to actual plant operations or job site use. Plant operations and job site uses vary widely and the individual results obtained are affected by the specific conditions encountered, which are beyond our control.

IMPORTANT:
Stonhard believes the information contained here to be true and accurate as of the date of publication. Stonhard makes no warranty, expressed or implied, based on this literature and assumes no responsibility for consequential or incidental damages in the use of the systems described, including any warranty of merchantability or fitness. Information contained here is for evaluation only. We further reserve the right to modify and change products or literature at any time and without prior notice.

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