

# Technical Data Sheet

## Stobielast<sup>®</sup> S 1020



Stobielast<sup>®</sup> S 1020 is a solvent-free, moisture-curing, one-component polyurethane binder that is designed to produce base layers for elastic safety surfaces.

As with any product, the use of Stobielast<sup>®</sup> S 1020 must be tested to determine the suitability of the product for the specific application. Field trials are strongly recommended prior to a large-scale application.

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|-------------------|------------------------------|
| <b>Type</b>       | Aromatic Polyurethane Binder |
| <b>Appearance</b> | Dark Brown                   |
| <b>Cure Type</b>  | Single-Component Moisture    |

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### Typical Properties at 68°F

|                                     |            |               |       |
|-------------------------------------|------------|---------------|-------|
| <b>Specific Gravity</b>             | ASTM D891  |               | 1.05  |
| <b>Density</b>                      | ASTM D891  | <b>lb/gal</b> | 8.76  |
| <b>Viscosity</b>                    | ASTM D4889 | <b>cP</b>     | 3,800 |
| <b><sup>1</sup>Tensile Strength</b> | ASTM D412  | <b>psi</b>    | 2,700 |
| <b><sup>1</sup>Elongation</b>       | ASTM D412  | <b>%</b>      | 155   |
| <b><sup>2</sup>Set to Touch</b>     | ASTM D5895 | <b>hours</b>  | ~ 6   |

<sup>1</sup>225 micron films

<sup>2</sup>68°F/50% relative humidity – Open time is generally 20 – 25% of set to touch time and is heavily dependent on relative humidity and temperature

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### Application

|                                      |                         |
|--------------------------------------|-------------------------|
| <b>Rubber Granules</b>               | 100 parts by weight     |
| <b>Stobielast<sup>®</sup> S 1020</b> | 15 – 18 parts by weight |

Although the above recommendations are typical, certain applications may require ratios outside of these values. The binder consumption rate will be heavily dependent on the shape, size and dust content of the rubber. Higher surface area, smaller particle size and higher dust content will result in a higher consumption of binder. Storage and use of the binder at elevated temperatures will lead to a reduced viscosity and may result in drainage of the binder during installation.

## Precaution

Please read the SDS carefully before use. Prior to application, the user must read and become familiar with the risks and hazards associated with the use of this product. Adherence to the proper safety techniques cannot be overemphasized, including the proper use of Personal Protective Equipment (PPE).

## Cure Profile

Curing takes place at ambient temperature by reaction with atmospheric moisture. A relative humidity of 40 – 80% is recommended for appropriate cure. Dry conditions (relative humidity less than 30%) can make the addition of water or catalyst necessary. Higher temperature, higher relative humidity and the addition of catalyst will shorten the cure time. The temperature should not fall below 50°F during curing.

## Processing

For various applications it's necessary to adjust:

- Binder quantity
- Added water

The rubber granules should be dry and free of dirt and debris. High moisture and dirt content can compromise the mechanical properties of the bound surface.

The following process is recommended:

1. Add the rubber to the mixer.
2. Add the binder and mix for the minimum time required to reach a uniform blend.

Mixing times are heavily dependent on mixer selection. More efficient mixers will reduce the mix time.

## UV-Stability

As with any urethane based on aromatic isocyanates, this product is not UV-stable and may show discoloration after exposure to direct sunlight. This effect is magnified when using EPDM granules or urethanes of vibrant color. Mechanical properties are not impacted.

## Storage

Binder must be protected against humidity and stored above 50°F. The ideal storage temperature is in the range of 59 – 77°F. Higher storage temperatures over a longer period can shorten the shelf life. The material should be stored in shaded areas when possible.

## Packaging

- 55-gallon drums
- 275-gallon totes
- Other sizes available on request

## Shelf-life

At ideal conditions, the material can be stored for up to six months in the original, unopened packaging. Partially used drums or totes should be used quickly or purged thoroughly with nitrogen prior to resealing.

When in use, air will be pulled into the drum or tote as material is withdrawn. Moisture from humid air will react with the unused material and lead to thickening or skin formation. The use of a desiccant cartridge on the air inlet will remove the moisture and increase the shelf life of partial containers. Desiccant cartridges and adaptors are available from multiple vendors.

For further details related to specific product usage, please contact your Stockmeier Urethanes representative.

## August 2020

### Notice:

This bulletin is provided for general informational purposes only and should not be construed as advice on specific product usage. The manufacturer makes no warranty of merchantability or of fitness for a particular purpose. The buyer assumes all liability for incorrect or illegal use of this product. For additional information please contact Stockmeier Urethanes USA, Inc at: (304) 624-7002  
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