



## Baymedix® FD103 for Froth Foam Thermoformability & Sensor Embedding.

Foams made by mechanical frothing aqueous polyurethane dispersions are characterized by a microporous cell structure, which enables fast fluid transport. The thermoplastic character of these foams allows you to create thin and shapeable foams and sealed patches. Covestro especially developed the product line Baymedix® FD waterborne polyurethane dispersions as the base material for innovative foams.

**Baymedix®**

### Key Features of the Foam:

- Thermoformable
- High mechanical strength & flexibility
- Smooth & soft touch
- Durable white
- Fast absorption
- Non-swelling



## Product Properties

- Aqueous polyurethane dispersion
- Aliphatic polyurethane
- Low viscosity at high solid content
- Physical foaming only

|                   | Baymedix® FD103 |
|-------------------|-----------------|
| Solids            | 57–62%          |
| Viscosity at 23°C | < 2,000 mPa · s |
| pH value          | 7~9             |

## Foam Properties

Technical data based on a foam sample with a thickness of 1.6 mm

|                                          |                                       |
|------------------------------------------|---------------------------------------|
| Foam density (g/l)                       | adjustable from 80–200                |
| Absorption (%)                           | max. 1,100                            |
| MVTR (g/(day · m²))                      | up to 6,000 (DIN EN 13726-1 Part 3.2) |
| Wicking (s)                              | < 2                                   |
| Swelling in saline solution (vol%)       | < 2                                   |
| Recommended conditions for thermoforming | 130–160°C, 1–4 bar                    |
| Tensile strength (MPa)                   | 0.7 (DIN EN ISO 527-2)                |
| Elongation at break (%)                  | 300                                   |

## Application Examples

- Thermoshaped foams for special designs
- Microporous hydrophilic foams with soft-touch surface
- Sensor patches, transponder patches
- Encapsulation for wearable devices



Soft and comfortable matrix for embedding of sensitive electronics.

## Embedding Process



Film on Foam



Two Foam Layer



Embedded Sensor



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