



Baymedix[®] polyurethane dispersions for versatile froth foam

Baymedix[®] aqueous dispersions provide the base materials for innovative polyurethane foams and bring solutions for versatile medical device designs in healthcare applications including wearables, sensor patches and wound prevention.

Baymedix[®]



Baymedix® FD103 / AD111

Baymedix® FD103 and Baymedix® AD111 aqueous aliphatic polyurethane dispersions are used in combination for froth foam formulations and are characterized by a low viscosity at high solid content which helps enable easier foam processing.

PROPERTY	BAYMEDIX® FD103	BAYMEDIX® AD111
Solids (%)	57 – 62	48 – 52
Viscosity at 23°C (mPa·s)	< 2,000	<1,000
pH value	7 – 9	6 – 9

Foams made by mechanical frothing (air incorporation) of aqueous polyurethane dispersions are characterized by a microporous cell structure, which enables fast fluid transport. The thermoplastic character of these foams enables the creation of thin and shapeable foams and sealed patches by thermoforming as well as the embedding of sensors. The combination with other grades of our Baymedix® portfolio is possible for tailor-made adjustment of foam properties such as elongation or chemical resistance.

Key features of foams based on Baymedix® FD103 & AD111

- Thermoformable
- Smooth and soft haptics
- High mechanical strength and flexibility
- Fast absorption
- No swelling
- Durable white (non-yellowing)

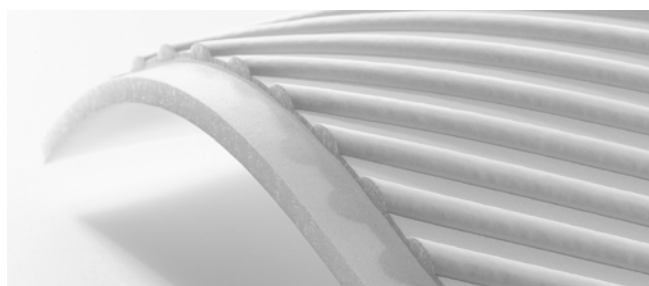


Untreated foam

Properties of foams based on Baymedix® dispersions

PROPERTY	BAYMEDIX® FOAM
Foam density (g/l)	130 – 200 (adjustable)
Absorption* (%)	Up to 600
MVTR* (g/(day · m²))	Up to 4,200
Elongation at break (%)	~400
Swelling in saline solution (vol %)	~10
Recommended conditions for thermoforming	130–160°C, 1–4 bar

*according to DIN EN 13726



Shaped foam

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¹Please see the "Guidance on Use of Covestro Products in a Medical Application" document.

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