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SMART CHEMISTRY
WITH CHARACTER.

SILICONES FOR NARROW FABRIC COATINGS

ALPATEC SILICONES

For narrow tape coatings

Modern textiles often require an invisible hold, so that the carrier can move freely, or the textile fulfils its function. With their sticky, transparent properties silicone elastomers applied at the right spots facilitate a high wear comfort of textiles and keep them in their correct position.
Silicone elastomers are applied onto the textile articles via narrow tape coating. One component (RTV 1) systems are widely used, as well as two component (RTV 2) systems.

One-component RTV 1 silicones

- Immediately ready for use. Blending is not necessary.
- Good adhesion.
- Crosslinking at room temperature and recommended with addition of heat.
- Moisture crosslinking.
- No inhibition.
- Formation of split products.
- Exhaust systems required.
- Shrinkage due to the condensation reaction.
- Processing time (pot life) is usually very short. Skin formation after few minutes
- Fulfils Oeko-Tex® Standard 100.

Two-component RTV 2 silicones

- Thorough blending and good exhaust system are required.
- Adhesion may be improved furthermore by adding a primer.
- Crosslinking at high temperature (heat).
- Inhibition risk (amines, polyurethanes, epoxide resins, substances containing sulphur, organometallic compounds such as tin compounds).
- No formation of decomposition products.
- Shrinkage < 1 %.
- Processing time (pot life) can be adjusted.
- For various application techniques (including screen and rotary printing).
- Surface sticky coatings possible.
- Fulfils Oeko-Tex® Standard 100.

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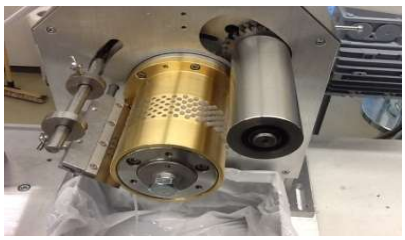

Coating cylinder for dot coating

Dot coating

RTV 1 component silicone is applied directly on the tapes out of a closed system by means of a special coating head. The silicone threads which are formed are rebuilt in seconds and form regular dots. Excess silicone is removed from the application cylinder by knife.

Standard recommendation:
ALPATEC 630, ALPATEC 730
ALPATEC 745

Sticky coating

There are 2 products in our range, ALPATEC 30203 A/B and ALPATEC 10175 A/B, which create a permanently tacky surface and obtain in this way a stronger adhesion of the garters on the skin. This tackiness just can be achieved with 2comp. silicone elastomers.

Please find more product information in the following table.

The stickiness may be adjusted to the needs by varying the mixing ratio. (higher amount of component A = stickier, more of component B = less sticky but better mechanical effect).

Additives

SILICON REMOVER
It is applied to dissolve already cross-linked silicone again and to remove it (E. g. to clean pipelines, nozzles and working equipment).

KÖRAFORM TM
Thixotropic agent for silicone systems. To increase viscosity and to modify the flowing properties.

ALPA-OIL 50
Silicone oil to lower viscosity and to modify the flowing properties.

COLORMATCH SI colour range
Colour range for silicone systems.

ALPATEC SILICONES

For narrow tape coatings

One component RTV 1 silicones

Product	Aspect	Running mm	Skin formation time min	Hardness Shore A	Tensile strength N/mm²	Elongation at break %	Resistance to further tearing N/mm²
ALPATEC 630	transparent	70	6 - 10	15			
ALPATEC 641	transparent	63	4 - 9	17	1.5	540	3.0
ALPATEC 730	transparent	60	5	18	1.6	450	3
ALPATEC 740	transparent	63	4	17	1.7	480	3.5
ALPATEC 745	transparent	70	10	17	1.8	480	3.5
ALPATEC 750	transparent	60	8	20	1.8	480	3.5
ALPATEC 7610/60 C2	transparent	80	8	22	1.7	300	

Two-component RTV 2 silicones

Product	Viscosity mPas		Mixing ratio	Potlife	Hardness	Tensile Strength	Elongation at break	Resistance to further tearing
	Component A	Component B	A : B	h	Shore A	N/mm²	%	N/mm²
ALPATEC 10175	130,000	70,000	1 : 1	24	12	0.25	500	2.3
ALPATEC 20175	130,000	130,000	1 : 1	24	24	2.6	520	5.9
ALPATEC 30180	120,000	100,000	1 : 1	24	28	4.9	600	11
ALPATEC 30185	120,000	120,000	1 : 1	24	28	4.9	600	11
ALPATEC 30191	90,000	85,000	1 : 1	1	22	5.3	510	14
ALPATEC 30194	170,000	170,000	1 : 1	24	40	8.4	410	27
ALPATEC 30203	90,000	100,000	1 : 1	1	14	3	400	5
ALPATEC 40175	120,000	70,000	1 : 1	24	40	5.3	280	11.4

* **Viskosity values can variate + / - 20.000 mPas**

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