



MEDICAL AND PHARMACEUTICAL TECHNOLOGY

Liquid and solid silicone rubber products for
medical and pharmaceutical applications



Flexibility, Opportunities, Innovations

biw

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DAL 1947 DÀ VITA AI TUOI PROGETTI

MATERIALS FOR MEDICAL AND PHARMACEUTICAL TECHNOLOGY

The utilised silicone rubber compounds are distinguished through their advantageous physiological characteristics. They comply with the requirements according to USP Class VI and the relevant chapters of ISO 10993 as well as various pharmacopoeias. Selected materials with their typical characteristics are listed below. Special types are available upon request. Liquid silicone is utilised to manufacture mouldings and 2K parts, solid silicone is used for example, in extrudates, hoses and high pressure hoses.



Material	Description	Hardness [Shore A] DIN 53505 DIN EN ISO 868	Tensile strength [N/mm ²] DIN 53504 ISO/DIS 37	Ultimate elongation [%] DIN 53504 ISO/DIS 37	Tear resistance [N/mm] ASTM D 624 B	Compression set [%] DIN 53517 (22h/175°C) DIN ISO 815	Operating temperature [°C]
Liquid silicone	ML20	20	7	800	25	30	-50/+200
Liquid silicone	ML30	30	7	600	20	30	-50/+200
Liquid silicone	ML40	40	9	600	30	30	-50/+200
Liquid silicone	ML50	50	10	480	30	25	-50/+200
Liquid silicone	ML60	60	9.5	350	25	25	-50/+200
Liquid silicone	ML70	70	8.5	280	20	30	-40/+180
Liquid silicone	ML80	80	7.5	210	15	25	-40/+180
Silicone addition curing	MA40	40	8.5	750	30	25	-50/+200
Silicone addition curing	MA50	50	9	750	35	25	-50/+200
Silicone addition curing	MA60	60	8.5	700	30	25	-50/+200
Silicone addition curing	MA70	70	7.5	500	30	25	-40/+180
Silicone addition curing	MA80	80	7.5	300	20	40	-40/+180
Silicone peroxide curing	MP40	40	9.5	550	20	40	-50/+200
Silicone peroxide curing	MP50	50	10.5	500	22	35	-50/+200
Silicone peroxide curing	MP60	60	10.5	420	21	35	-50/+200
Silicone peroxide curing	MP70	70	10.5	450	24	40	-50/+200
Silicone peroxide curing	MP80	80	10	420	24	50	-40/+180

All specifications are based on our experiences. They are typical values which do not constitute specifications. The customer is responsible to test the suitability of the product for the intended use. We are not liable for nor do we warrant the suitability and reserve our right to changes.



APPLICATION EXAMPLES

- Ventilation tubes
- High pressure hoses
- Drainage hoses
- Dialysis hoses, filters
- Surgical instruments, handles
- Instrument holder
- Fixation for accesses
- Laser and inlay labelling

		ISO 10993							
EP3.1.9	USP Class VI	Zyotoxicity	Haemolysis	Pyrogenicity	Sensitisation	Dermal irritation	Implantation	Bfr (Empf. XV)	FDA 177.2600
■ = conform ○ = limited									
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Cleanroom Class 7 and 8 according to DIN EN ISO 14644-2





Headquarters

BIW INNOVATIONS FOR MEDICAL AND PHARMACEUTICAL TECHNOLOGY

BIW is a company founded in 1971 with more than 500 employees and a turnover of more than 76 million Euro. As leading supplier of silicone rubber and textile fibre products, BIW provides a series of tested materials on a liquid silicone and solid rubber basis for the application in the medical and pharmaceutical technology sector. The technology focuses on **physiologically suitable materials which comply with the requirements of medical and pharmaceutical regulations and pharmacopoeia**. Customer requests with respect to colour, hardness and mechanical properties can be implemented by way of in-house material compounding and process development across a broad spectrum. Sterile production is conducted in our **Class 7 and 8** cleanroom facility. Compact silicone material, silicone mouldings and 2K components are regularly available as well as silicone foam with minimal density. Protection and insulation sleeveings in combination with silicone and glass fibre are also part of the production program of BIW. The large production sector also offers the option of supplying complete assembly groups. An integrated management system according to **IATF 16949, ISO9001, ISO13485, ISO14001, ISO50001** and **IIP (Investors in People)** is implemented at the location. Risk management in placing the medical products onto the market occurs according to **ISO 14971**.

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