menzolit®

Your First Choice in Compounds

Menzolit GmbH

Headquarter
Werner-von-Siemens-Strasse 2-6
76646 Bruchsal
Germany
Phone: + 49 7251 321 973- 82

Menzolit S.r.l.

Via Isonzo 39
22078 Turate (Como)
Italy
Phone: + 39 02 967 15 1

Menzolit Vitroplast S.L.

Cami de Can Many
Poligono Ind. Can Jané Coll de la Manya
08400 Granollers
Spain
Phone: + 34 93 844 33 80

Menzolit Ltd.

Baxter Works,
Rossendale Road Industrial Estate,
Burnley.
BB11 5EZ
Great Britain
Phone: + 44 1282 875 063

www.menzolit.com

Our world wide partners:

boytek

Boytek A.S.
Yenibosna Merkez Mahallesi 29
Ekim Caddesi No6 Bahcelievler
Istanbul Turkey
Phone: + 90 212 551 03 04
www.boytek.com.tr

IN COOPERATION WITH menzolit

Disnflex Composites (Shanghai) Co.Ltd.
No 48, Pingye Road,
Jin Shan Industrial Zone,
Shanghai China 201507
Phone: +86 (0) 21 67 25 60 99
www.disnflex.com

ЭКСПОНЕНТА

ООО ""Exponenta""
Pavlova St. 10/10 off. 202
170026 Tver' Russland
Phone: +7 (48 22) 52 03 14
www.expoelectro.ru

Close to our customer - to satisfy our costumers

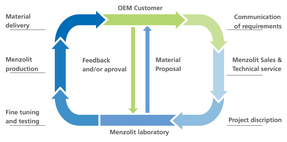
Fibre reinforced materials are being used by leading companies; they have replaced traditional materials because of better technical and economical performance.
We live up to the motto "close to the customer" from the development of the product to the production of suitable, best fitting material. Fibre reinforced materials made by Menzolit are tailored to the specific needs of our customer. Our laboratories and engineers create individual formulations based on polymers using functional fillers and reinforcing fibres.

We produce, based on international demanding quality standarts, SMC, BMC and HPC to satisfy the demands of our clients and in this way contribute to their success story.

We assist our customer starting from the first idea about a new material through definitions of specifications and sampling to moulding and production supply in a partnership process.

The unique global position and long-term relationships with our customers allow Menzolit and its clients to develop together innovative solutions in front of OEMs, decision-makers and end-users.

Three production sites in Europe as well as cooperation partners in China, Turkey and Russia get Menzolit always within reach. This guarantees logistic efficiencies and short lead time. We operate our own logistic centre and use experienced and reliable logistic partners at any customer location on the globe.

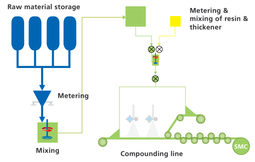


The success of Menzolit composite materials is based on the fact that product properties are tailored according to the customer's needs. It is possible to modify the technical properties like strength, fire retardancy, colour, paintability or weight according to individual needs. Because of the excellent mouldability of our reinforced plastics, a broad variety of shapes, sizes and applications can be made. All sites dispose of highly productive application technology and engineering laboratories. Our capacity for development allows us to break new ground for innovation.

Preparing and manufacturing

Preparing the resin paste is one of the key processes. The various liquids and powders are mixed under high shear forces. Basic raw materials are resins, additives, catalysts, mould release agents and fillers. For coloured compounds a pigment is added to the paste. The paste is then mixed with fibres, usually glass fibres.

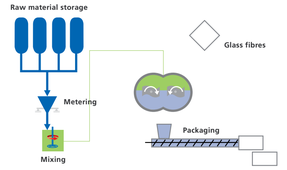
SMC Compounding



On the SMC continuos line the doctor box delivers paste onto a carrier film. The cutter adds a layer of chopped glass fibres on top of the paste. Then paste is metered on a second film, fed on top of the glass-fibres to form a sandwich of paste/fibres/paste.

Rollers then treat the sandwich to impregnate the fibres with the two paste layers. The sheet is wound into a coil and SMC is matured to a leatherlike sheet, ready for removing the film and being customized for moulding.

BMC Compounding



BMC is prepared in a mixer. After preparing a base paste it will be loaded into the mixing device. Then all other ingredients are added and homogenized. BMC is packed into bags until moulding. To avoid any material changes during storage and transport it is packaged in a styrene tight packaging.

Where do I need which Menzolit moulding compound?

Material / Process / Feature	SMC	BMC
Moulding	compression	injection
Fibre length	long	medium
Mechanical strength	high	medium/low
Part size	large	small

Quality, safety, environment and health Management

Menzolit's understanding of quality encloses product quality, but furthermore safety, health and environmental-friendly acting.

The quality of composite materials plays a decisive rule for a trouble free production of moulded components. The continuously high quality of our composite materials contributes to the productivity of our customer's manufacturing facilities. To achieve this, we permanently upgrade our manufacturing facilities and supervise according to strict rules.

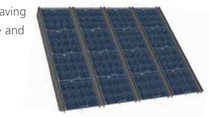
We optimize all processes of development and R&D including engineering and production, to supply our customers with continuously improved composite materials. For this purpose all manufacturing processes are monitored and controlled by computer systems. All elements of our material processing fit various state of the art ISO standards, for example ISO 9001 and ISO TS 16949. We are furthermore certified ISO 14001.

Sanitary and domestic appliances

Menzolit has a variety of products to serve the special needs of sanitary parts and domestic appliances, whereas the area of sanitary in Europe is growing. More and more bath tubs and shower trays are moulded from SMC to use the combination of strength, stiffness and appeal. Some of the parts are coated directly in the mould. Moreover, we produce granite-based materials used for kitchen sinks for instance. Many household devices that are heated such as waffle makers, toasters, irons and egg cookers are made by using some injection moulded BMC parts for the area where most of the heat is developed. Typical examples are the heat shields of irons. Apart from the heat resistance, the pigmentability especially in bright colours is a demand in combination with a shiny surface.

Building and construction

Menzolit has a variety of products to serve the special needs of the building industry. The demands vary from focussing on mechanical properties, on appeal or on resistance against water, chemicals or even fire.
Typical applications are water panels for water tanks, door skins, housings, canopies, streetlights, waste bins or even advertising columns. Roof-integrated solar panels have also been developed. Here, weather resistance and function integration are the advantages. By using an appropriate design, the energy-source can be combined with the roof function, saving installation time and materials.



Rail

Rail applications usually require the same stiffness and surface performance levels as other applications do.

However, beyond these well-known properties of SMC and BMC, a major demand for mass transit are the fire and smoke advantages of materials used outside and especially inside the train. Toxicity is avoided, since our products are halogen-free.

Electrical and electronic applications

Menzolit's SMC and BMC are an excellent choice for electrical and electronic applications due to their intrinsic insulating properties. They offer economical high performance solutions for complex electrical engineering challenges.
Being temperature resistant is ideal for the insulation of electrical systems like cable distribution cabinets in outdoor applications. SMC and BMC thermosets provide maximum fire protection using environmentally friendly mineral compounds and they are stable across a wide range of temperatures and frequencies. Resistance to weathering and low temperatures without embrittling can be observed even down to –40°C.
Another benefit is the dimensional stability: the material can resist heat generated by electrical systems and to long-term mechanical stresses.

SMC and BMC can be customized for discharging of electrical charges in ex-proof environments. The environments of ex-proof applications include frequent temperature loads, outdoor exposure, rough weather conditions and chemical attack. Off-shore exploration rigs and mining environments are the most challenging examples. Most common applications are ex-proof of lamp housings, terminal boxes, plugs, sockets and ex-proof components for distribution of energy.
More intricate and compact designs, constantly increasing material requirements and cost constraints, will make the use of our material even more compelling in the future.

Automotive

Composites are used in the automotive and truck industry for over 50 years now. SMC and BMC are the best solution for weight reduction and design freedom at a vehicle, while stiffness, strength and temperature performance are also provided.

As a corrosion-resistant material, our products are ideal to realize a complex shape with a perfect surface. Easy to bond, on-line and off-line paintable, Menzolit supplies excellence in creation. SMC and BMC are widely utilized for exterior body panels, like front ends, decklids, bonnets, fenders, hood or tonneau covers. In the engine compartment, SMC and BMC are used for oil sumps, valve covers and also for smaller precision devices, such as throttle bodies and inlets. Special grades of SMC and BMC can stand the heat generated by lighting systems. Therefore most headlamp reflectors worldwide are injection-moulded from BMC.
In a project run it was clearly demonstrated that an inner structure / frame of a vehicle is feasible and can fulfil all requirements regarding stiffness and crash worthiness. Newly designed Menzolit SMC 0430 is specialized for online painted light weight body panels.

Truck

In the truck industry, SMC and BMC are used for exterior body panels, especially for the cabins, where the excellent corrosion resistance and SMC´s inherent stiffness is profitable.
The applications range from front panels, bumper systems, air deflectors, step, toolboxes and roof spoiler up to side protection and side spoilers. In addition, SMC/BMC parts at the engine drastically reduce the noise due to better sound reduction properties compared to conventional material. Therefore, oil sumps, valve covers or driving shaft covers are used.
Another important benefit is the weight reduction which allows better fuel economy.
Hybrid solutions are often used for the side steps, whereas major SMC benefits like design freedom, stiffness and integration of functions for areas with different thickness, pigmentation and surface design are an advantage. SMC can be painted on the body-in-white. SMC can be used in hybrids with sheet metal and aluminium. SMC can easily help function integration leading to weight reduction of the vehicle.

menzolit®

		Fibre Content UD / total	Moulding Temperature	Moulding Pressure [4]	Density	Shrinkage [1], [3]	CTE [3]	HDT	Glass Transition Temp.	Continuous Service Temp. [2]	Young's Modulus [3]	Tensile Strength [3]	Flex Strength [3]	Flex Modulus [3]	Impact Strength [3]	Poison's Ratio [3]	Limited Oxygen Index	Glow Wire [5]	Fire Retardancy	Volume Resistivity	Surface Resistivity	Comparative Tracking Index	Water Absorption
		EN ISO 1172	M	M	ISO 1183	ISO 2577	ISO 11359-2	EN ISO 75-2A	ISO 11357-2	M	EN ISO 527-4	EN ISO 527-4	EN ISO 14125	EN ISO 14125	EN ISO 179	ISO 527	EN ISO 4589-2	IEC 60695-2-12	UL 94	IEC 60093	IEC 60093	IEC 60112	ISO 62
		%	°C	bar	g/cm³	%	10**-6m/m.K	°C	°C	°C	GPa	MPa	MPa	GPa	kJ/m²	-	%	°C	Level	Ohm*cm	Ohm	Level	%
SMC 0150	General purpose SMC for electrical applications especially lamp housings. Fire retardancy UL 94 HB, glow wire 750 °C.	22	135-150	80-100	1,8	0,07	12	>200	170	165	10	55	140	9	60	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0160	General purpose SMC for electrical applications especially wiring cabinets. Fire retardancy UL 94 HB, glow wire 850°C.	25	135-150	80-100	1,8	0,15	12	>200	170	165	10	60	146	9	66	0,30	25	850	HB@2 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0170	General purpose SMC for electrical applications especially wiring cabinets. Fire retardancy UL 94 HB, glow wire 850°C.	32	135-150	80-100	1,8	0,15	12	>200	170	165	12	81	194	10	88	0,30	22	750	HB@ 3mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0190	General purpose SMC for electrical applications. Fire retardancy: UL 94, V-0 (3 mm) - Yellow card available and fulfils DIN 5510 class S4	28	135-150	80-100	1,7	0,10	12	>200	170	165	11	66	158	10	71	0,30	32	960	HB@ 3mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0200	General-purpose material for housings, covers and functional components. Minimal fire redundancy UL 94 HB, V-0 possible on request.	25	135-150	80-100	1,7	0,10	12	>200	170	165	9	60	142	9	64	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0250	General-purpose SMC optimized for high density to give superior acoustic damping properties.	25	135-150	80-100	2,3	0,10	11	>200	170	165	10	60	150	10	64	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0290	Injection mouldable SMC for electrical applications. Suitable for switch gear housings and functional components, that need higher strength than injection moulded BMC. Fire retardancy UL 94, V-0 (3 mm). Yellow card available for all colours.	25	135-150	80-100	1,7	0,10	12	>200	170	165	10	60	143	10	64	0,30	32	960	V-0@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0300	SMC with improved surface quality compared to SMC 0200 . Typical applications are housings, covers or furniture (i.e. stadium seats). UL94 V-0 possible on request.	27	135-150	80-100	1,7	0,08	12	>200	170	165	10	64	154	10	70	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0390	A product with improved surface quality. Pigmentable but not available in all colours. Typical applications are body panels for trucks, commercial vehicles or farm vehicles. For rail interior application also available according to DIN 5510 S4.	30	135-150	80-100	1,9	0,02	10	>200	185	165	12	85	182	10	82	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0400	Class-A SMC for exterior body applications on cars, LCV´s and trucks. These compounds mould to parts with good up to excellent surface quality for painted body panels.	30	140-160	80-100	1,9	-0,05	10	>200	200	165	11	90	180	10	80	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
SMC 0410	Premium Class-A SMC for exterior body applications on cars. The parts have to be primed with a conductive primer before e-coating.	30	145-155	80-100	1,9	-0,05	10	>200	200	165	10	75	180	10	85	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
SMC 0430	Low Emission Class-A SMC with reduced density for passenger cars. In case of e-coating the parts have to be primed with a conductive primer. The parts show low emission, low smell and low fogging .	38	145-155	60-100	1,3	-0,05	8	>200	200	165	8	60	140	8	65	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
SMC 0500	Low Density SMC for non painted applications	35	135-150	50-80	1,2	0,05	10	>200	170	165	7	60	140	7	65	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
SMC 0600	Low Pressure SMC for applications requiring moulding at low press tonnage.	25	120-150	20-50	1,6	0,08	12	>200	170	165	10	50	133	7	60	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 0800	This product is resistant to food chemicals and cleaning detergents. Typical applications are trays or food processing equipment.	25	135-150	80-100	1,8	0,05	12	>200	125	140	11	55	144	9	65	0,30	27	850	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
SMC 0900	Product has increased resistance to chemicals used in chemical plants for pumps and armatures. Please refer to our list of resistance to chemicals.	30	135-150	80-100	1,7	0,08	12	>200	125	140	11	75	166	9	75	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,3
SMC 1000	Product with increased hydrolysis resistance. Typical applications, sectional water tanks, or water purification systems.	25	135-150	80-100	1,7	0,08	12	>200	145	150	11	60	145	8	65	0,30	28	850	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
SMC 1100	High strength material with chopped fibres and tough matrix resins for structural applications.	45	135-150	80-100	1,8	0,04	12	>200	162	170	13	150	280	13	128	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,3
SMC 1400	High strength material resistant to fuel, lubricants, brake fluid and cleaning agents being used around automotive engines. Typical applications are oil pan or valve cover.	35	135-160	80-100	1,9	0,03	12	>200	162	170	10	130	250	10	100	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,3
SMC 1500	SMC with high temperature stability for applications requiring high service temperature, for instance a heat shield.	30	135-160	80-100	1,8	0,05	12	>200	185	190	12	80	180	10	80	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 1600	Product for sanitary applications, for instance sink, shower tray or bath tube. Special appearance effects are possible, please contact our tech service for further information.	20	135-150	80-100	1,7	0,05	12	>200	170	165	11	55	136	8	61	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
SMC 2300	Arc resistance SMC for arc quenching cambers. High fire retardancy SMC for electrical applications .	25	135-150	80-100	1,8	0,08	12	>200	170	165	12	60	150	11	67	0,30	43	960	V-0@3 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 2400	SMC for Railway application with high flame retardancy, low smoke density and toxicity. British standard BS 6853 level 1b and pr EN 45545 HL3 possible on request.	25	135-150	80-100	1,9	0,08	10	>200	170	165	10	60	140	10	70	0,30	70	960	V-0@2 mm	10^{15}	10^{12}	CTI600	< 0,5
SMC 2500	SMC for electrical applications requiring very high isolating properties.	25	135-150	200-250	1,8	0,05	12	>200	170	165	11	60	145	9	65	0,30	22	750	HB@3 mm	10^{16}	10^{13}	CTI600	< 0,3
SMC 2600	This product provides some conductivity to provide antistatic properties for explosion proof components in mining, gas and oil exploration industries as well as in chemical plants. UL Yellow card available UL 94 V-0, UL 746 C.	30	135-150	80-100	1,8	0,15	12	>200	170	165	12	75	179	10	81	0,30	30	960	V-0@3 mm	$> 10^{6}$	10^{6}-10^{9}	NA	< 0,5
CarbonSMC™ 1100	A new product based on chopped carbon fibres for light weight structural body panels.	60	145-155	50-120	1,4	-0,15	8	>200	162	170	30	130	320	28	55	0,30	22					NA	< 0,5
HPC 1200	High strength material with unidirectional reinforcement. Especially high strength and stiffness in direction of fibre orientation for structural applications.	15 / 45	135-150	80-100	1,8	0,2/-0,03	9 / 7	>200	162	170	12 / 22	40 / 300	95 / 650	10 / 24	40 / 250	0,14/0,3	22			10^{15}	10^{12}	CTI600	< 0,5
HPC 1300	High strength material with unidirectional reinforcement. Especially high strength in fibre direction, high glass content.	25 / 50	135-150	80-100	1,7	0,2/-0,03	9 / 7	>200	162	170	12 / 25	70 / 410	95 / 740	11 / 28	40 / 370	0,14/0,3	22			10^{15}	10^{12}	CTI600	< 0,5
BMC 0170	General purpose BMC for electrical applications. Fire retardancy UL 94 HB, glow wire 750°C. High Strength	25	135-150	40-80	1,9	0,15	10	>200	170	165	13	35	120	10	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 0190	General purpose BMC for electrical applications. Fire retardancy UL 94 V-0 (3mm), glow wire 960°C.	20	135-150	20-80	1,8	0,15	10	>200	170	165	13	30	100	10	30	0,30	30	960	V-0@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 0200	General purpose material for housings, covers and functional components. Fire retardancy UL 94 HB, V-0 possible upon request.	20	135-150	20-80	1,9	0,15	10	>200	170	165	13	30	100	10	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 0300	Low Shrink material . Minimal fire retardancy UL 94 HB, higher retardancy upon request. Typical applications are housings, covers and household appliances.	20	135-150	20-80	1,9	0,08	10	>200	170	165	13	30	100	10	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 0390	Low Profile BMC with increased shrinkage compensation but reduced pigmentability. Shrinkage is approximately zero. Typical applications are functional compounds with light colours. Minimal fire retardancy UL 94 HB, higher retardancy upon request	25	135-160	20-80	1,9	-0,03	10	>200	185	165	14	35	120	11	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 0400	Low Profile material for Class-A body panel applications. The material provides an excellent surface for painted panels for the automotive industry.	25	135-160	20-80	1,9	-0,05	10	>200	185	170	14	36	120	11	30	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
BMC 0410	This product is recommended for components requiring very precise tolerances as an alternative to outsert technology. Ejector pins on male and female half of the mould are necessary.	15	135-160	20-80	1,9	-0,05	10	>200	170	165	14	25	60	11	15	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5
BMC 0800	This product is resistant to food chemicals and cleaning detergents. Components for food processing equipment.	25	135-150	20-80	1,9	0,15	10	>200	125	140	13	35	100	10	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
BMC 0900	Has increased resistance to chemicals used in chemical plants for pumps and armatures. Please refer to our list of resistance to chemicals.	25	135-150	20-80	1,8	0,15	10	>200	125	140	13	35	120	10	30	0,30	30	960	V-0@3 mm	10^{15}	10^{12}	CTI600	< 0,3
BMC 1000	Product with increased hydrolysis resistance, for instance pump housings and water purification systems.	25	135-150	20-80	1,8	0,15	10	>200	125	150	13	35	120	10	30	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
BMC 1100	High strength material with tough matrix resins, for compression moulding only.	26	135-160	20-80	1,8	0,03	10	>200	162	170	13	40	130	9	35	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
BMC 1400	High strength material resistant to fuel, lubricants and cleaning agents being used around automotive engines. Examples are valve cover, carburettor housings.	25	135-160	20-80	1,9	0,03	10	>200	162	170	13	37	125	10	35	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,3
BMC 1500	With high temperature stability for applications requiring high service temperatures approx. 200°C.	20	135-150	20-80	2,0	0,03	10	>200	185	190	14	30	100	11	20	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 2300	Arc resistance BMC for arc quenching chambers, especially high fire retardancy.	20	135-150	20-80	1,9	0,08	10	>200	134	155	13	30	100	10	20	0,30	43	960	V-0@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 2500	For electrical applications requiring very high isolating properties.	20	135-150	20-80	1,9	0,05	10	>200	185	180	13	31	100	10	23	0,30	22	750	HB@3 mm	10^{16}	10^{13}	CTI600	< 0,3
BMC 2600	This product provides some conductivity to provide antistatic properties for applications within explosion proof components in mining, gas and oil exploration industries as well as in chemical plants.	18	135-155	20-80	1,8	0,09	10	>200	170	165	13	25	75	10	20	0,30	32	960	V-0@3 mm	$> 10^{6}$	10^{6}-10^{9}	NA	< 0,5
BMC 3000	BMC for microwave & cookware applications.	10	135-160	20-80	2,0	-0,03	10	>200	170	180	14	23	74	11	12	0,30	22	750	HB@3 mm	10^{15}	10^{12}	CTI600	< 0,5
BMC 3100	BMC for headlamp reflectors.	12	135-160	20-80	2,0	-0,03	10	>200	185	190	14	25	100	11	15	0,30	22	750		10^{15}	10^{12}	CTI600	< 0,5

menzolit® is a registered trademark!

Properties given are the mean value of test results, and taken from non pigmented, compression moulded panels at room temperature. Our products are manufactured according to ISO 9000 standards, a Safety Data Sheet according to EG No. 1907/2006/CE is available.

Notice: We make no warranty or representation as to the suitability of the product or information herein for any particular application. The determination of the suitability of the above information for any particular use is solely the responsibility of the user. For further information please contact your local Menzolit Technical Service Team for assistance or see www.menzolit.com.

1) Negative values indicate expansion.
2) Continuous service temperature without external loads.
3) If two figures are given for one property, the first figure refers to the transversal direction. The second figure refers to the principal axis.
4) Refers to moulding pressure in compression moulding.
5) Wall thickness 3,0 mm
6) Figures given apply to a quasi isotropic 6-layer [0/90/45/-45/90/0] design, for different layer designs please contact our R&D departement.
7) Heat conductivity is understood perpendicular to the plane of the laminate (out of plane axis)

Compression moulding:

Menzolit compounds are mainly compression moulded in heated steel molds designed with shear edges around. We recommend to use high density, tough mold steels and surface treatment like chrome plating. A guide for curing time is 20...30 seconds per millimetre of wall thickness. After the compound being in contact with the hot mould, the press should be closed as fast as possible to avoid pre curing. External release agents are not necessary for serial production, however helpful for start/restart.

Injection moulding:

Most common moulding temperatures are 140...165°C for standard compounds, 30...40°C for the injection unit. Back pressure is just needed to assure constant dosing. The specific injection pressure is in a region of 50...250 bar, injection time should be as short as possible but long enough ensure ventilation. A small holding pressure should be applied until the gate is cured. A guide for curing time is 10 seconds per millimetre of wall thickness.

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We develop, manufacture and market composite materials based on resin, mineral filler and reinforcing fibres, in the form of: SMC, BMC, HPC and CarbonSMC™. Fibre reinforced materials made by Menzolit are tailored to the specific needs of our customer. Our laboratories and engineers create individual formulations fitted to your requirement and application. In this material properties table you will find an overview of our possibilities only. Whatever you plan to develop and produce, Menzolit reinforced composite materials meets your specific performance required. Take benefit of properties like strength, fire retardancy, colour, paintability or low weight. For technical support and further information please contact us.