



**WACKER**

**SILICONES**

**ELASTOSIL®**

ELASTOSIL® M MOLD-MAKING COMPOUNDS  
FOR MAXIMUM PRECISION

CREATING TOMORROW'S SOLUTIONS



# IT MAY SOUND COMMONPLACE. BUT IN FACT IT'S THE SECRET TO SUCCESS: A REPRODUCTION CAN ONLY BE AS GOOD AS ITS MOLD.

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ELASTOSIL® M mold-making compounds are two-component, room-temperature-vulcanizing silicone rubbers >(RTV-2) with excellent fidelity of >reproduction. There are suitable grades for making all kinds of molds, no matter how intricate, and for use with all types of >reproduction material, whether wax, plaster, concrete, casting resin or low-melting metal alloy.

Thanks to their great flexibility and outstanding release properties, ELASTOSIL® M rubbers separate very easily from the model. Their high resistance to the >reproduction material means they can be used over and over again.

All these excellent processing properties make ELASTOSIL® M compounds indispensable for mold-making: whether for industrial manufacturers or for artists and craftsmen.

The following pages contain a summary of the properties of ELASTOSIL® M mold-making compounds and their wide range of applications. This summary is intended only as a guide and not as a substitute for personal dialog. After all, no two models are identical, and each mold-making technique is a science in its own right.

Please don't hesitate to contact our technical support team if you have specific questions concerning your application.

Call us. We'll be glad to help.

Many molding problems are fastest solved on location – in a personal discussion with your WACKER technical support specialist.



## WE GET CALLS FROM ALL KINDS OF PEOPLE: FROM MUSEUM DIRECTORS, THROUGH PROTOTYPERS, TO DESIGNERS OF DECORATIVE BUTTONS

**ELASTOSIL® M mold-making compounds are ideal for an amazing range of applications. This is effectively due to their nature, since they are easy to process, require no expensive equipment and >cure at room temperature.**

ELASTOSIL® M mold-making compounds have all the properties that a mold-maker can wish for: the users of this >elastic material range from hobbyists to manufacturers of imitation leather and from archeologists to prototypers. Our comprehensive range of pourable, spreadable and kneadable ELASTOSIL® M grades includes the ideal product for every application.

**Nothing is impossible**  
The fields of application for ELASTOSIL® M mold-making compounds are as varied as the products:

### **Prototypes**

- Design and working models
- Preseries models
- Wax models
- Small production runs

### **Industrial mass production of**

- Imitation leather
- Plaster working molds for porcelain and sanitary ceramics manufacture
- Ornamental door, window, mirror and picture frames
- Ornamental fronts for furniture
- Costume jewelry, ornamental buttons, chocolates, figures of chocolate, etc.
- Electroformed parts
- GRP laminates

### **>Reproductions and copies**

- Museum pieces
- Archeological findings
- Hobbyist applications

With more than 25 standard products in our range, there is sure to be one to meet your needs. But if that is not the case, we will work on a solution for you.



# WE CAN TELL YOU A LOT ABOUT THE ADVANTAGES OF ELASTOSIL® M MOLD-MAKING COMPOUNDS. BUT WHY NOT FIND OUT FOR YOURSELF?

ELASTOSIL® M mold-making compounds are available as >condensation-curing and >addition-curing systems. Thanks to their variable >consistency and reactivity, and the properties of the >cured rubber, they offer users practically unlimited scope.

ELASTOSIL® M mold-making compounds are divided into two groups which differ in the way they >cure: >Condensation-curing ELASTOSIL® M grades are >cured by adding a liquid or pasty >catalyst at temperatures between 0 °C and 70 °C. Higher temperatures reverse the cross-linking reaction, a phenomenon known as reversion: the system remains in, or reverts to, a tacky or liquid state. With >condensation-curing systems, the cross-linking reaction typically eliminates a low alcohol, usually ethanol or propanol. The >cured rubber is ready for use as soon as all the alcohol has evaporated. Evaporation of the alcohol does, however, cause a loss in weight and slight >shrinkage of the rubber. >Addition-curing ELASTOSIL® M grades are >cured by mixing >components A and B at temperatures between 10 °C and 200 °C. Since no volatile >reaction products are eliminated during >cross-linking, there is neither reversion of the cross-linking reaction at elevated tem-

peratures nor any chemical >shrinkage of the >cured rubber due to weight loss. Accordingly, these grades can be used immediately after demolding.

### >Impaired curing

Certain substances or materials impair the action of the platinum-complex >catalyst and can >inhibit >vulcanization of >addition-curing ELASTOSIL® M grades if they come into contact with the uncured rubber. It suffices even if such substances are present on the surface of a substrate (model, mixing equipment) or in the ambient air. In the case of >condensation-curing ELASTOSIL® M grades, it is important to monitor the air humidity. If it is too low, the rubber will not >cure completely, remaining tacky to liquid at the surface.



# A QUICK GLANCE AT THIS TABLE WILL TELL YOU WHICH MOLDING TECHNIQUE IS BEST FOR YOUR TYPE OF MODEL

Type of model	Example	Mold-making technique	Advantages	Disadvantages
<ul style="list-style-type: none"> <li>Flat reverse side</li> <li>Only shallow, if any &gt;undercuts or depressions</li> <li>For models of limited size</li> </ul>	Medallion	<ul style="list-style-type: none"> <li>One-part &gt;block mold</li> <li>Pouring or impression techniques</li> </ul>	<ul style="list-style-type: none"> <li>Low labor input</li> <li>Self-supporting mold</li> </ul>	<ul style="list-style-type: none"> <li>Relatively high silicone rubber consumption</li> </ul>
<ul style="list-style-type: none"> <li>Flat reverse side</li> <li>Pronounced &gt;undercuts or depressions</li> <li>No limit on model size</li> </ul>	Relief	<ul style="list-style-type: none"> <li>One-part &gt;skin mold</li> <li>Pouring or spreading technique</li> </ul>	<ul style="list-style-type: none"> <li>Easy to demold</li> <li>Relatively low silicone rubber consumption</li> </ul>	<ul style="list-style-type: none"> <li>Higher labor input than for &gt;block mold (necessity of making a &gt;support mold)</li> </ul>
<ul style="list-style-type: none"> <li>Structured on all sides</li> <li>Complex shape</li> <li>Pronounced &gt;undercuts</li> <li>For models of limited size</li> </ul>	Prototypes for industry	<ul style="list-style-type: none"> <li>One-part &gt;block mold</li> <li>Demolding by cutting along a parting line</li> <li>Use as two- or more-part &gt;block mold</li> <li>Pouring technique (possibly under &gt;vacuum)</li> </ul>	<ul style="list-style-type: none"> <li>Lower labor input than for two-part &gt;block mold</li> <li>Self-supporting mold</li> </ul>	<ul style="list-style-type: none"> <li>Relatively high silicone rubber consumption</li> </ul>
<ul style="list-style-type: none"> <li>Base or pedestal with flat standing surface</li> <li>Complex shape</li> <li>Pronounced &gt;undercuts or depressions</li> <li>For models of limited size</li> </ul>	Trophies, small statues	<ul style="list-style-type: none"> <li>One-part &gt;skin mold</li> <li>Demolding by cutting open side</li> <li>Use as openable one-part &gt;skin mold</li> <li>Pouring or spreading</li> </ul>	<ul style="list-style-type: none"> <li>Lower labor input than for two-part &gt;skin mold</li> <li>Low demolding forces</li> <li>Relatively low silicone rubber consumption</li> </ul>	<ul style="list-style-type: none"> <li>Higher labor input than for &gt;block mold (necessity of making a &gt;support mold)</li> </ul>
<ul style="list-style-type: none"> <li>Structured on all sides</li> <li>Absence of or only shallow &gt;undercuts or depressions</li> <li>For models of limited size</li> </ul>	Fossils, coins	<ul style="list-style-type: none"> <li>Two- or more-part &gt;block mold</li> <li>Pouring or impression technique</li> </ul>	<ul style="list-style-type: none"> <li>Self-supporting mold</li> </ul>	<ul style="list-style-type: none"> <li>Relatively high labor input</li> <li>Relatively high silicone rubber consumption</li> </ul>
<ul style="list-style-type: none"> <li>Structured on all sides</li> <li>Complex shape</li> <li>Pronounced &gt;undercuts or depressions</li> <li>No limit on model size</li> </ul>	Large statues	<ul style="list-style-type: none"> <li>Two- or more-part &gt;skin mold</li> <li>Pouring or spreading</li> </ul>	<ul style="list-style-type: none"> <li>Low demolding forces</li> <li>Relatively low silicone rubber consumption</li> </ul>	<ul style="list-style-type: none"> <li>Higher labor input than for &gt;block mold (necessity of making a &gt;support mold)</li> </ul>

Only quality endures: whether you are making complicated technical moldings or restoring spectacular objects.



ELASTOSIL® M should always be stored cool and dry in tightly closed containers at 5 to 25 °C.

# THE FIGURES IN THIS TABLE ARE ONLY A GUIDE. HOW COULD THEY POSSIBLY REPLACE YOUR TECHNICAL SUPPORT SPECIALIST?

>Consistency Color of the >cured rubber			>Properties of the >cured rubber		Special features	>Viscosity of the ready-to-use mix	Density (DIN 53 479 A)	Hardness (DIN 53 505)	Tensile strength (DIN 53 504 S3 A)	Elongation at break (DIN 53 504 S3 A)	Tear resistance (ASTM D 624 B)	Linear >shrinkage after 7 days	>Catalyst	Proportion of >catalyst	Pot life at 23°C/50% rel. humidity	Demoldable after (tack-free time) 23°C/50% rel. humidity	Mixing ratio of A : B	Pot life at 23°C	Demoldable after (tack-free time) 23°C	Demoldable after (tack-free time) 70°C	ELASTOSIL®
						[mPa s]	[g/cm <sup>3</sup> ]	[>Shore A]	[N/mm <sup>2</sup> ]	[%]	[N/mm]	[%]	ELASTOSIL®	[wt %]	[min]	[h]	[pbw]	[min]	[h]	[min]	ELASTOSIL®
<b>&gt;Condensation-curing</b>																					
M 1470	Kneadable, pink	Hard; high mechanical strength	General-purpose grade			> 1,000,000	1.28	50	4.5	230	> 10	0.2	M 1470	Paste T 40	2 / 5	70 / 20	5 / 2				M 1470
M 3500	Spreadable, >non-sag, translucent	Soft; extremely high extensibility and mechanical strength	For >skin molds			> 1,000,000	1.10	20	4.0	700	> 30	0.6	M 3500	T 35 / T 35 // T 46 / T 46	4 / 5 // 4 / 5	150 / 80 // 40 / 20	24 / 20 // 10 / 8				M 3500
M 3502	Spreadable, >non-sag, white	High extensibility and mechanical strength	For >skin molds; excellent resistance to polyester and polyurethane resins			> 1,000,000	1.24	26	4.5	450	> 23	0.4	M 3502	T 10 / T 10 T 21 / T 51 // T 26 / T 56	2 / 3 5 / 5 // 5 / 5	15 / 10 65 // 30	3 / 2 9 // 6				M 3502
M 4400	Pourable, pale yellow	Soft; high extensibility	General-purpose grade			25,000	1.30	23	2.0	250	> 3	0.7	M 4400	T 37 / T 37 // T 40 / T 40	3 / 4 // 2 / 3	90 / 60 // 40 / 20	12 / 9 // 7 / 6				M 4400
M 4440	Pourable, beige	Moderately hard	General-purpose grade			20,000	1.22	37	2.5	200	> 3	0.4	M 4440	T 37 / T 40 // T	3 / 2 // 2 / 4	80 / 50 // 40 / 15	10 / 7 // 5 / 2				M 4440
M 4470	Pourable, reddish-brown	Hard	High thermostability and thermal conductivity			10,000	1.44	60	4.5	120	> 4	0.8	M 4470	T 37 / T 37 // T 40 / T 40	3 / 4 // 2 / 3	90 / 80 // 40 / 20	24 / 6 // 4 / 3				M 4470
M 4500	Pourable, white	Very soft; very high extensibility and high mechanical strength	High resistance to polyester resins			20,000	1.20	14	3.0	450	> 15	0.6	M 4500	T 12 / T 12	3 / 4	60 / 30	7 / 5				M 4500
M 4503	Pourable, white	Soft; high extensibility and mechanical strength	General-purpose grade			40,000	1.16	25	5.0	350	> 20	0.5	M 4503	T 35 / T 46	5 / 5	90 / 30	20 / 12				M 4503
M 4511	Pourable, white	Very soft; very high extensibility and mechanical strength	Excellent resistance to polyester and polyurethane resins			20,000	1.22	12	3.5	600	> 18	0.4	M 4511	T 21 / T 51 T 26 / T 56	5 / 5 5 / 5	75 30	10 6				M 4511
M 4512	Pourable, white	Soft; very high extensibility and mechanical strength	Excellent resistance to polyester and polyurethane resins			25,000	1.19	20	3.5	500	> 24	0.4	M 4512	T 21 / T 51 T 26 / T 56	5 / 5 5 / 5	75 30	10 6				M 4512
M 4514	Pourable, white	Soft; very high extensibility and mechanical strength	Excellent resistance to polyester and polyurethane resins			25,000	1.25	25	4.5	450	> 25	0.4	M 4514	T 21 / T 51 T 26 / T 56	5 / 5 5 / 5	75 30	10 6				M 4514
M 4541	Pourable, white	Moderately hard; high extensibility and very high mechanical strength	Excellent resistance to polyester and polyurethane resins			30,000	1.16	32	5.0	400	> 30	0.4	M 4541	T 21 / T 51 T 26 / T 56	5 / 5 5 / 5	75 30	10 6				M 4541
<b>&gt;Addition-curing</b>																					
M 4370 A/B	Pourable, reddish-brown	Hard	High thermostability and thermal conductivity			8,000	1.43	55	3.0	130	> 4	< 0.1	M 4370 A/B				9 : 1	80	6	15	M 4370 A/B
M 4600 A/B	Pourable, translucent	Soft; very high extensibility and mechanical strength	General-purpose grade			15,000	1.10	20	7.0	800	> 20	< 0.1	M 4600 A/B				10 : 1	90	12	20	M 4600 A/B
M 4601 A/B	Pourable, reddish-brown	Soft; very high extensibility and mechanical strength	General-purpose grade			20,000	1.13	28	6.5	700	> 30	< 0.1	M 4601 A/B				9 : 1	90	12	20	M 4601 A/B
M 4615 A/B	Pourable, blue	Very soft; very high extensibility; high mech. strength	General-purpose grade; especially for glove molds			5,000	1.03	13	3.0	700	> 10	< 0.1	M 4615 A/B				100 : 15	90	12	20	M 4615 A/B
M 4630 A/B	Pourable, white	Flexible; excellent mechanical strength	General-purpose grade; ideal for making concrete moldings			20,000	1.13	28	6.5	700	> 30	< 0.1	M 4630 A/B				10 : 1	90	12	20	M 4630 A/B
M 4641 A/B	Pourable, transparent	Moderately hard; high mechanical strength	High resistance to polyurethane and epoxy resins			30,000	1.07	43	4.5	300	> 28	< 0.1	M 4641 A/B				10 : 1	90	15	30	M 4641 A/B
M 4642 A/B	Pourable, deep red	Mod. hard; high extensibility, v. high mech. strength	General-purpose grade			15,000	1.14	37	7.0	550	> 30	< 0.1	M 4642 A/B				10 : 1	90	12	20	M 4642 A/B
M 4643 A/B	Pourable, gray	Moderately hard; high mechanical strength	High resistance to polyurethane and epoxy resins			25,000	1.35	48	5.0	300	> 10	< 0.1	M 4643 A/B				9 : 1	70	12	20	M 4643 A/B
M 4644 A/B	Pourable, transparent	Moderately hard; high mech. strength; in-mold release	Excellent resist. to polyurethane and epoxy resins			50,000	1.07	40	5.5	400	> 28	< 0.1	M 4644 A/B				10 : 1	90	15	30	M 4644 A/B
M 4645 A/B	Pourable, transparent	Moderately hard; high mech. strength; in-mold release	Excellent resist. to polyurethane and epoxy resins			35,000	1.06	40	5.0	330	> 28	< 0.1	M 4645 A/B				10 : 1	90	15	30	M 4645 A/B
M 4647 A/B	Pourable, chrystal clear	Moderately hard; high mechanical strength	Excellent resist. to polyurethane and epoxy resins			70,000	1.02	45	4.5	250	> 10	< 0.1	M 4647 A/B				10 : 1	120	15	30	M 4647 A/B
M 4648 A/B	Pourable, translucent	Moderately hard; high mechanical strength	Excellent resist. to polyurethane and epoxy resins			15,000	1.11	36	6.0	400	> 20	< 0.1	M 4648 A/B				10 : 1	90	12	20	M 4648 A/B
M 4670 A/B	Pourable, beige	Hard; high mechanical strength	High resistance to polyurethane and epoxy resins			80,000	1.34	55	5.5	300	> 12	< 0.1	M 4670 A/B				10 : 1	60	24	30	M 4670 A/B

ELASTOSIL® is a registered trademark of Wacker Chemie AG.

Wacker Chemie AG is certified to ISO 9001 and ISO 14001. The Elastomers Business Unit of the WACKER SILICONES Business Division is certified to ISO/TS 16949:2002.

# YOUR ELASTOSIL® M MOLD-MAKING COMPOUNDS WILL DO MOST OF THE WORK FOR YOU. AND THE REST IS EASY.

ELASTOSIL® M mold-making compounds are very easy to process. To exploit their full potential and avoid basic errors in their application, however, the user should observe some basic rules. We have published a whole manual containing detailed information on the various mold-making techniques. Please ask us for a copy.

## Safety first

Your consignment of ELASTOSIL® M mold-making compound will automatically be accompanied by the relevant safety data sheet. Please read it carefully before processing the compound, and keep it in a safe place. Should it ever get mislaid, do not hesitate to ask us for another copy.

## Preparing the >components

To ensure uniform distribution of the fillers, all pourable compounds or >components must be thoroughly stirred – preferably with a mechanical stirrer – in the drum each time before a quantity is removed.

## Metering the >components

It is essential to meter the >components accurately, since only by following the mixing ratio precisely is it possible to obtain a >reproducible pot life and >curing time as well as a >cured rubber whose properties comply with the specification.

## Mixing the >components

Make sure that the two >components are thoroughly (homogeneously) mixed: rubber and >catalyst in the case of >condensation-curing ELASTOSIL® M grades and A and B in the case of >addition-curing grades.

## Removal of entrained air

To obtain >cured rubber without any air bubbles, free-flowing mixtures should be >deaerated (>evacuated) in a >desiccator or >vacuum cabinet at reduced pressure (10 to 20 mbar).

## Applying the mold-making compound

Pourable ELASTOSIL® M grades that have been >deaerated are poured in a thin stream from as low a height as possible. If the mixture has not already been >deaerated, pour it from as great a height as possible. With spreadable grades, first apply a thin, bubble-free layer of >catalyzed mix using a stiff, short-bristled brush. Then apply the spreadable compound. Apply kneadable compounds manually or using a roller.

To ensure that there are no bubbles in the >cured rubber, always aim the liquid rubber at the same point in the mold when pouring it.

# YOU DON'T HAVE TO READ THESE TWO PAGES. BUT IF YOU'RE INTERESTED, YOU'LL FIND SIMPLE DEFINITIONS OF ALL THE TECHNICAL TERMS.

## >Addition-curing

Curing mechanism for RTV-2 silicone rubber. No volatile by-products are formed and hence there is no shrinkage. The cured rubber can be used immediately after demolding

## >Block mold

A mold that is more than 3 cm thick and is formed either by the pouring or the impression technique. Thanks to its inherent stability it is self-supporting

## >Catalyst

A compound that accelerates curing. In the case of condensation-curing ELASTOSIL® M grades, organo-tin compounds are employed. Platinum compounds are used with the addition-curing grades

## >Catalysis

Mixing either the rubber base and the catalyst or components A and B to obtain a workable rubber

## >Component

Part of a two or multi-part system. The condensation-curing ELASTOSIL® M grades are composed of a rubber base and a >T-series catalyst. Addition-curing ELASTOSIL® M grades comprise an A and a B component

## >Condensation-curing

Curing mechanism for RTV-2 silicone rubber. A volatile, low molecular weight alcohol is formed as a by-product

## >Consistency

The flow and deformation properties of a material

## >Cured rubber

Rubber in which cross-linking is complete

## >Curing agent

Substance with at least three reactive groups that reacts with >silicone polymers and induces three-dimensional cross-linking

## >Curing

Chemical reaction between the >curing agent and the ends of at least three >silicone polymer chains. This reaction transforms the silicone rubber into an elastomeric form

## >Deaeration

Removal of the air trapped when the rubber base and >T-series catalyst or components A and B are mixed

## >Desiccator

Pressure resistant glass or plastic vessel used for deaerating catalyzed rubbers by means of a >vacuum pump

## >Evacuation

Deaeration of the catalyzed rubber under vacuum

## >Elastic, elasticity

Ability of a material to return to its original size and shape after deformation

## >Impaired curing

Incomplete or failed cross-linking that manifests itself in reduced hardness or, in extreme cases, in tacky-to-liquid phases in the rubber or on its surface. See also inhibition

## >Inhibition, inhibit

Impaired curing of addition-curing RTV-2 silicone rubbers due to partial or complete poisoning of the platinum catalyst through contact with certain materials, including:

- Sulfur, numerous sulfur compounds and other sulfur-containing substances such as natural and synthetic rubbers (e.g. EPDM)
- Amines, urethanes and amine-containing derivatives, such as polyurethanes or amine-cured epoxy resins
- Organo-metallic (especially organo-tin) compounds and substances containing them, e.g. cured rubbers and catalysts of condensation-curing RTV-2 silicone rubbers

## >Non-sag

Catalyzed rubbers which do not flow under gravity when applied to vertical or inclined surfaces, but retain their shape or thickness

## >Reaction product

A substance formed in a reaction; the volatile alcohol eliminated during condensation-curing, for example, is also a reaction product

## >Reproducible

Amenable to reproduction

## >Reproduction

An exact copy of a model

## >Reproduction material

Material used to make a reproduction

## >RTV-2 silicone rubber

2-component rubber that cures or vulcanizes at room temperature (RTV)

## >Shore hardness

Measure of the hardness of a cured rubber (indentation hardness). Two hardness scales are used: Shore A for the usual rubber hardness range; Shore 00 for the extremely low hardness range

## >Shrinkage

Reduction in size and weight of the rubber due to evaporation of the volatile alcohol formed during curing; only occurs in condensation-curing ELASTOSIL® M grades

## >Silicone polymer

Long-chained compound of alternating oxygen and silicon atoms, the latter bearing two organic groups; the chain is terminated at each end by a reactive group

## >Skin mold

A mold less than 2 cm thick that is formed by either pouring or spreading. It requires a support for stability during use

## >Support mold

A mold made out of a rigid material that prevents a skin mold from being distorted when it is filled with reproduction material or while it is in storage

## >T-series catalyst

The second component of condensation-curing ELASTOSIL® M grades which contains the >curing agent and the catalyst

## >Undercut

A recess or elevation at the surface of the model that tapers towards the surface

## >Vacuum

A space largely devoid of air that is produced by extracting the air with a vacuum pump. Proper deaeration of a pourable ELASTOSIL® M grade requires a vacuum with a maximum residual pressure of 20 mbar

## >Vacuum pump

Device for extracting air to create a vacuum

## >Viscosity

A characterization of the consistency of a compound: pourable, spreadable or kneadable. Viscosity is quoted in millipascal seconds (mPa s). The higher the value, the less able the compound is to flow

## >Vulcanization, vulcanize

See curing

# WACKER AT A GLANCE



## WACKER

is a technological leader in the chemical and electrochemical industries and a worldwide innovation partner to customers in many key global sectors. With around 14,400 employees, WACKER generated sales of EUR 2.76 billion in 2005. Germany accounted for 21% of sales, Europe (excluding Germany) for 31%, the Americas for 22% and Asia-Pacific, including the rest of the world, for 26%. Headquartered in Munich, Germany, WACKER has some 20 production sites worldwide and a global network of over 100 sales offices. With R&D spending at 5.3% of sales in 2005, WACKER is among the world's most research-intensive chemical companies.

## WACKER SILICONES

is a leading supplier of complete silicone-based solutions that comprise products, services and conceptual approaches. As a provider of solutions, the business division helps customers press ahead with innovations, exploit global markets fully, and optimize business processes to reduce overall costs and boost productivity. Silicones are the basis for products offering highly diverse properties for virtually unlimited fields of application, ranging from the automotive, construction, chemical, electrical engineering and electronics industries, through pulp and paper, cosmetics, consumer care and textiles, to mechanical engineering and metal processing.

## WACKER POLYMERS

is the global leader for high-quality binders and polymer additives. This business division's activities encompass construction chemicals and functional polymers for lacquers, surface coatings and other industrial applications, as well as basic chemicals, i. e. acetyls. Products such as redispersible powders, dispersions, solid resins, powder binders and surface coating resins from WACKER POLYMERS are used in the construction, automotive, paper and adhesives industries, as well as by manufacturers of printing inks and industrial coatings.

## WACKER FINE CHEMICALS

is an expert in organic synthesis, silane chemistry and biotechnology, providing tailored solutions for its customers in the life sciences and consumer care industries. The range of innovative products includes complex organic intermediates, organosilanes, chiral products, cyclodextrins and amino acids.

With its comprehensive expertise, WACKER FINE CHEMICALS is a preferred partner for highly challenging custom-manufacturing projects in the fields of chemistry and biotechnology.

## WACKER POLYSILICON

has been producing hyperpure silicon for the semiconductor and photovoltaics industries for over 50 years. As one of the largest global manufacturers of polycrystalline silicon, WACKER POLYSILICON supplies leading wafer and solar-cell manufacturers.

## Siltronic

is one of the world's leading producers of hyperpure silicon wafers, supplying many major chip manufacturers. Siltronic develops and produces wafers up to 300 mm in diameter at facilities in Europe, the USA, Asia and Japan. Silicon wafers form the basis of state-of-the-art micro and nanoelectronics used, for example, in computers, telecommunications, motor vehicles, medical technology, consumer electronics and control systems.

**WACKER**

CREATING TOMORROW'S SOLUTIONS

The data presented in this brochure are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately upon receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The information given in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.

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