

**WACKER**

CREATING TOMORROW'S SOLUTIONS

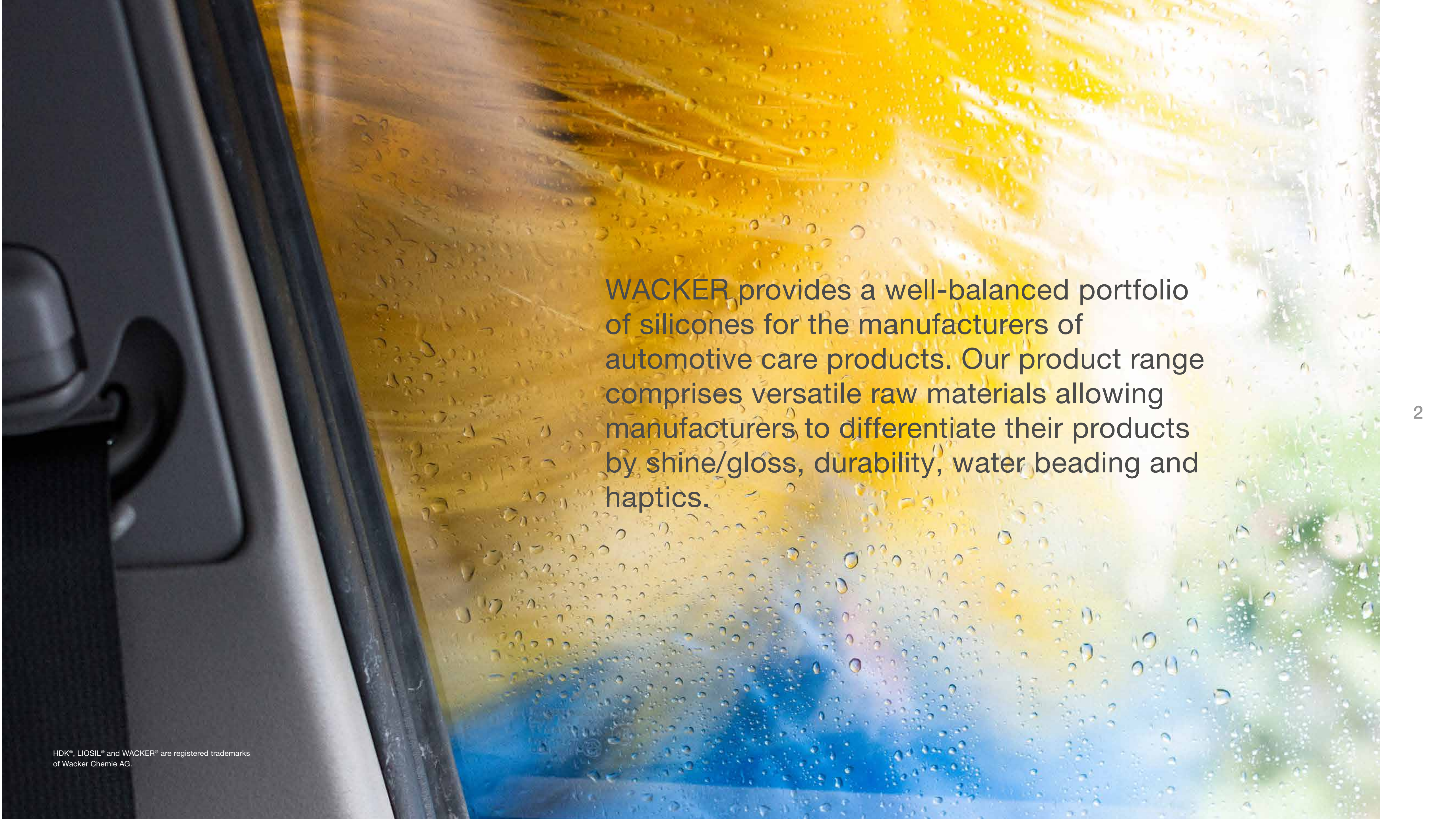
HDK®

LIOSIL®

SILFOAM®

WACKER®

SILICONES FOR AUTOMOTIVE CARE –  
ENHANCING APPEARANCE AND SUSTAINING VALUE



WACKER provides a well-balanced portfolio of silicones for the manufacturers of automotive care products. Our product range comprises versatile raw materials allowing manufacturers to differentiate their products by shine/gloss, durability, water beading and haptics.

# FROM DULL TO DAZZLING WACKER SILICONES FOR SUPERIOR AUTOMOTIVE CARE

We offer a broad range of silicones with performance-enhancing benefits for automotive care products to meet the needs of professional and retail markets with both aqueous and solvent-based materials.



Higher viscous silicone fluids enable superior gloss.



Lower viscous silicone fluids offer excellent spreading and lubricating behavior.



### Silicone Fluids

Silicone Fluids AK are linear polydimethylsiloxanes ranging in viscosity from  $0.65 \text{ mm}^2 \text{ s}^{-1}$  to  $1,000,000 \text{ mm}^2 \text{ s}^{-1}$ . These fluids are the most versatile products in our portfolio.

#### Benefits of Silicone Fluids

- Easy processability
- Low surface tension
- Excellent spreading behavior
- Water repellency
- Gloss effect

Lower viscous grades offer excellent spreading and lubricating behavior, while higher viscous fluids enable superior gloss, depth of shade and improved durability. For optimum polishing results, we recommend a combination of 3 to 5 parts of low or medium viscosity fluids with 1 to 2 parts of a high viscosity grade.





### Organo-Modified Silicone Fluids

Our portfolio of organo-modified silicone fluids is designed to face the most relevant needs of automotive care:

- Amino-functional siloxanes possess outstanding polarity to enhance adhesion to paint, metal or glass. Their unique chemical properties support color-deepening, especially for weathered substrates.

Reactive amino fluids, like WACKER® L 654 and L 655, crosslink in the presence of moisture, forming an insoluble polymeric film that is highly resistant to detergents. The rate of crosslinking is proportional to the fluids' amine number.

Non-reactive amino fluids provide excellent storage stability concomitant with no build-up on surfaces, even when used frequently. Excellent rub-out, high gloss, depth of color along with great detergent resistance for paint conditioners can be achieved with a combination of WACKER® L 654 and L 655. Polishes that contain acidic waxes could polymerize when combined with amino-functional silicones.

- Polyether-functional siloxanes, like WACKER® L 053 and L 066, exhibit excellent spreading and wetting behavior and are proven solutions for the formulation of anti-fog products.

### Solids

Our wax type silicones WACKER® W 23 and W 27 exhibit excellent weather resistance, durability and detergent-stability. Their properties are evident already at very low dosages (< 0.5%), which makes them indispensable in modern paint conditioners or polishes.



### Defoamers and HDK®

Our portfolio also includes highly efficient defoamers (such as SILFOAM® SRE or SILFOAM® SE 47) as well as hydrophobic and hydrophilic HDK® (e.g. HDK® N20, T30, T40, H15, H20, H30) to further support individual needs for the formulation and application of care products.



### Silicone Blends

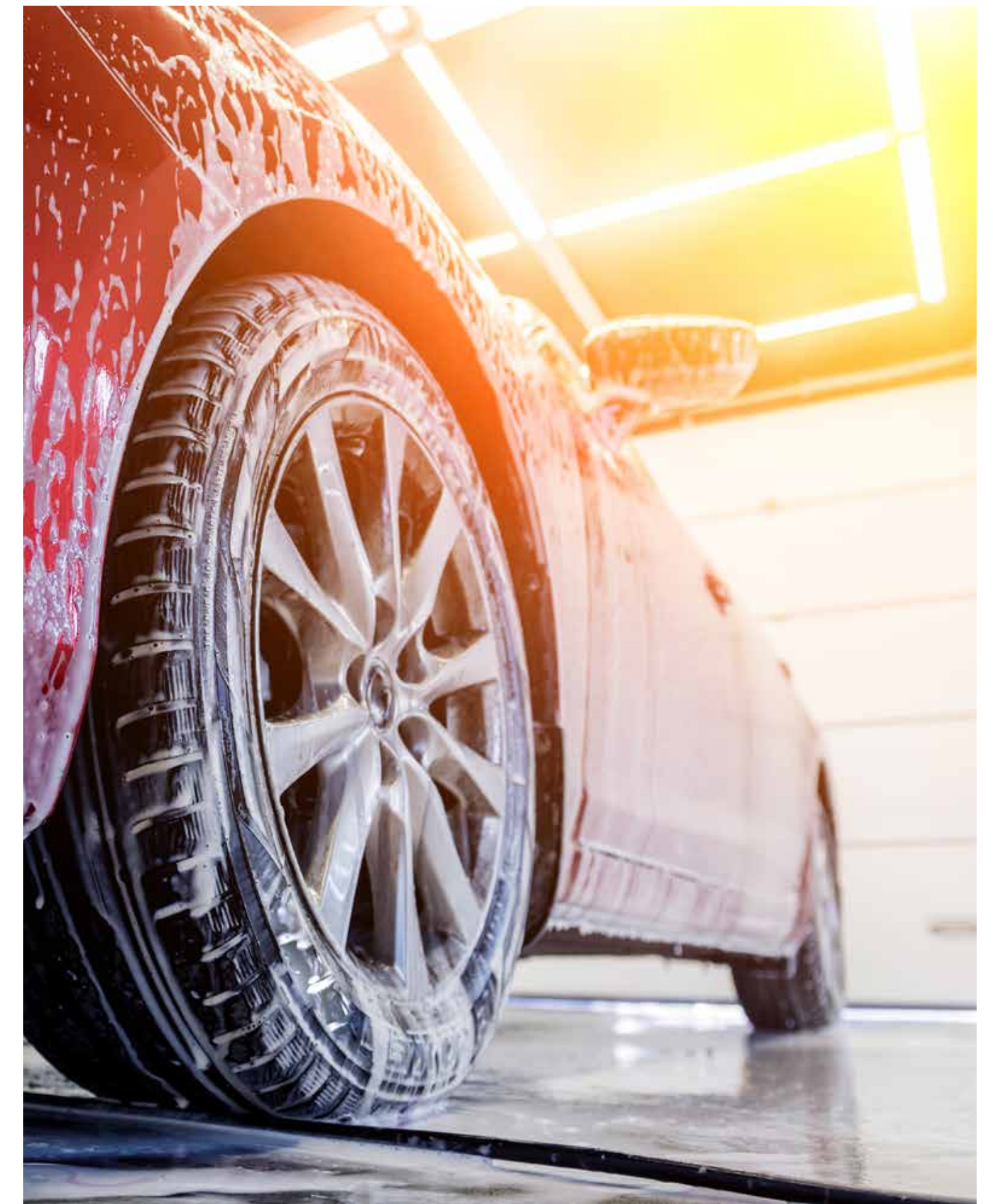
Our silicone blends combine the advantages of resins with those of silicones fluids. They provide improved water repellency, durability and detergent-stability. In many cases they are used as alternatives to high-melting organic waxes.

### Silicone Resin Solutions

WACKER® 1035 is a 50% solution of a specialty silicone resin in aromatic-free hydrocarbons. The product is designed to provide optimum compatibility with many organic raw materials. In contrast to silicone resin blends it is an excellent formulation basis for providing a more matt surface finish.

### Silicone Emulsions

Aqueous formulations are essential for developing more sustainable products that are also ecological and health-friendly. Our versatile portfolio of silicone emulsions helps you to reach these goals. All of our technical emulsions provide a high storage, pumping and dilution stability. We carefully selected emulsifier systems that unify outstanding stability and compatibility. WACKER® NE 4720 was exclusively developed for highest compatibility with sensitive surfaces, e.g. headlights made from polycarbonate. However, specific compatibility tests are still necessary.



# SILICONE RAW MATERIALS FOR AUTOMOTIVE CARE PRODUCTS

| Product Overview and Comparison of Fluids and Blends |                    |             |                   |                      |                                 |             |            |               |         |             |
|------------------------------------------------------|--------------------|-------------|-------------------|----------------------|---------------------------------|-------------|------------|---------------|---------|-------------|
| Product                                              | Active Content [%] | Basis       | Modification Type | Amine Number [meq/g] | Viscosity [mm²s <sup>-1</sup> ] | Gloss/Shine | Durability | Water Beading | Wetting | Ease of Use |
| Silicone Fluids                                      |                    |             |                   |                      |                                 |             |            |               |         |             |
| WACKER® AK 50 – 1000                                 | 100                | PDMS        |                   |                      |                                 | ●           | ●          | ●●            | ●       | ●●●         |
| WACKER® AK 1000 – 60000                              | 100                | PDMS        |                   |                      |                                 | ●●          | ●●         | ●●            | ●       | ●●●         |
| Organo-Modified Silicone Fluids                      |                    |             |                   |                      |                                 |             |            |               |         |             |
| WACKER® L 053                                        | 100                | Modif. PDMS | Polyether         |                      | 600 – 1,400                     |             |            |               | ●●      | ●●          |
| WACKER® L 066                                        | 100                | Modif. PDMS | Polyether         |                      | 10 – 25                         |             |            |               | ●●●     | ●●          |
| WACKER® L 653                                        | 100                | Modif. PDMS | Amino             | 0.1 – 0.15           | 50 – 100                        | ●           | ●          | ●             | ●●      | ●●●         |
| WACKER® L 654 (reactive)                             | 100                | Modif. PDMS | Amino             | 0.25 – 0.32          | 100 – 150                       | ●●          | ●●         | ●●            | ●       | ●●          |
| WACKER® L 655 (reactive)                             | 100                | Modif. PDMS | Amino             | 1.30 – 1.50          | 25 – 65                         | ●●          | ●●●        | ●●            | ●       | ●           |
| WACKER® L 656                                        | 100                | Modif. PDMS | Amino             | 1.20 – 1.40          | 15 – 35                         | ●           | ●●         | ●             | ●●      | ●●●         |
| WACKER® L 662                                        | 100                | Modif. PDMS | Amino             | 0.57 – 0.63          | 8,000 – 22,000                  | ●●●         | ●●●        | ●●            | ●●      | ●           |
| WACKER® 65000 VP                                     | 100                | Modif. PDMS | Amino             | 2.40 – 2.80          | 150 – 300                       | ●           | ●          | ●             | ●●      | ●●●         |
| Silicone Waxes                                       |                    |             |                   |                      |                                 |             |            |               |         |             |
| WACKER® W 23                                         | 100                | Modif. PDMS | Alkyl             |                      | 350 / 50 °C                     | ●●●         | ●●         | ●●            |         | ●●          |
| WACKER® W 27                                         | 100                | Modif. PDMS | Alkyl             |                      |                                 | ●●●         | ●●●        | ●●●           |         | ●           |
| Silicone Resin Blends                                |                    |             |                   |                      |                                 |             |            |               |         |             |
| WACKER® TPR                                          | 100                | Resin, PDMS |                   |                      | 250 – 400                       | ●●          | ●●●        | ●●            | ●       | ●●          |
| WACKER® 1038                                         | 100                | Resin, PDMS |                   |                      | 1,000 – 3,000                   | ●●          | ●●●        | ●●●           | ●       | ●●          |
| Silicone Resin Solution                              |                    |             |                   |                      |                                 |             |            |               |         |             |
| WACKER® 1035                                         | 50                 | Resin       |                   |                      | 15 – 30                         |             | ●●●        | ●●            |         | ●●          |

# SILICONE RAW MATERIALS FOR AUTOMOTIVE CARE PRODUCTS

| Product Overview and Comparison of Silicone Emulsions |                    |             |                   |            |             |            |               |         |             |
|-------------------------------------------------------|--------------------|-------------|-------------------|------------|-------------|------------|---------------|---------|-------------|
| Product                                               | Active Content [%] | Basis       | Modification Type | Emulsifier | Gloss/Shine | Durability | Water Beading | Wetting | Ease of Use |
| Silicone Fluid Emulsions                              |                    |             |                   |            |             |            |               |         |             |
| WACKER® E 10                                          | 35                 | mv PDMS     |                   | n          | ●           | ●          | ●●            | ●●      | ●●●         |
| WACKER® E 3154                                        | 60                 | mv PDMS     |                   | n          | ●           | ●          | ●●            | ●●      | ●●●         |
| WACKER® E 3155                                        | 60                 | mv PDMS     |                   | n          | ●           | ●          | ●●            | ●●      | ●●●         |
| WACKER® NE 4720                                       | 40                 | mv PDMS     |                   | a          | ●           | ●          | ●●            | ●●      | ●●●         |
| WACKER® E 3157                                        | 60                 | mv PDMS     |                   | n          | ●●          | ●●         | ●●            | ●●      | ●●●         |
| WACKER® E 1044                                        | 35                 | hv PDMS     |                   | n          | ●●          | ●●         | ●●●           | ●●      | ●●●         |
| WACKER® E 22                                          | 35                 | hv PDMS     |                   | n, a       | ●●●         | ●●●        | ●●●           | ●●      | ●           |
| Organo-Modified Silicone Fluid Emulsions              |                    |             |                   |            |             |            |               |         |             |
| WACKER® E 32                                          | 35                 | Modif. PDMS | Alkyl             | n          | ●●●         | ●●         | ●●            | ●       | ●●          |
| WACKER® E 1656 (reactive)                             | 60                 | Modif. PDMS | Amino             | n          | ●●          | ●●         | ●●            | ●       | ●●          |
| LIOSIL® HC 603 E (reactive)                           | 17                 | Modif. PDMS | Amino             | n          |             | ●●         | ●●            | ●●      | ●           |
| LIOSIL® HC 621 E (reactive)                           | 17                 | Modif. PDMS | Amino             | n          | ●●          | ●●         | ●●            | ●●      | ●           |
| Silicone Blend Emulsion                               |                    |             |                   |            |             |            |               |         |             |
| WACKER® E 37                                          | 35                 | Resin, PDMS |                   | n, a       | ●●          | ●●●        | ●●            | ●●      | ●●          |

● moderate  
●●● best  
n = non-ionic, a = anionic  
lv = < 350 mm²/s  
mv = 350 – 1,000 mm²/s  
hv = 10,000 – 60,000 mm²/s

For further information, please consult the detailed product data sheets available under [www.wacker.com](http://www.wacker.com).  
The above-mentioned data are not intended for the preparation of product specifications; please contact WACKER beforehand.

# SELECTION GUIDE FOR FLUIDS & BLENDS

| Product Recommendations          |                      |                                                                                     |                                                                |                                                              |                                                                     |                                                                |                                                              |                                 |                                                                                |
|----------------------------------|----------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------|---------------------------------|--------------------------------------------------------------------------------|
|                                  | Target Application ➞ | Exterior Conditioner, Polish and Wax                                                | Exterior Trim Conditioner and Protectant                       | Tire and Rubber Care                                         | Wash, Wax and Rinse Aid                                             | Interior Trim Conditioner and Protectant                       | Glass Cleaner and Protectant                                 | Upholstery Care                 | Leather Conditioner and Care                                                   |
| Application Benefit ↴            |                      |                                                                                     |                                                                |                                                              |                                                                     |                                                                |                                                              |                                 |                                                                                |
| Gloss/Shine                      |                      | WACKER® Silicone Fluids AK (mv, hv)<br>WACKER® L 654<br>WACKER® 1038<br>WACKER® TPR |                                                                | WACKER® Silicone Fluids AK (mv, hv)                          |                                                                     | WACKER® Silicone Fluids AK (mv)                                |                                                              | WACKER® Silicone Fluids AK (mv) | WACKER® Silicone Fluids AK (mv, hv)                                            |
| Color Enhancement                |                      | WACKER® Silicone Fluids AK (hv)<br>WACKER® L 654                                    |                                                                | WACKER® Silicone Fluids AK (mv, hv)                          |                                                                     | WACKER® Silicone Fluids AK (mv, hv)                            |                                                              |                                 | WACKER® L 653<br>WACKER® L 656<br>WACKER® Silicone Fluids AK (hv)              |
| Durability/ Detergent Resistance |                      | WACKER® L 655<br>WACKER® L 654<br>WACKER® 1038<br>WACKER® W 23                      | WACKER® 1038<br>WACKER® TPR                                    | WACKER® 1038<br>WACKER® 1035<br>WACKER® TPR<br>WACKER® L 654 | WACKER® W 23<br>WACKER® W 27                                        | WACKER® Silicone Fluids AK (hv)<br>WACKER® 1038                | WACKER® W 23<br>WACKER® TPR                                  |                                 | WACKER® Silicone Fluids AK (hv)<br>WACKER® 1038<br>WACKER® 1035<br>WACKER® TPR |
| Ease of Use                      |                      | WACKER® Silicone Fluids AK (mv)<br>WACKER® L 654                                    |                                                                |                                                              |                                                                     |                                                                |                                                              |                                 | WACKER® Silicone Fluids AK (mv)                                                |
| Water Beading                    |                      | WACKER® W 23<br>WACKER® W 27<br>WACKER® L 654<br>WACKER® 1038                       | WACKER® L 654<br>WACKER® L 655<br>WACKER® 1038<br>WACKER® W 23 | WACKER® 1038<br>WACKER® 1035<br>WACKER® TPR                  | WACKER® L 656<br>WACKER® L 65000 VP<br>WACKER® L 662<br>(rinse off) | WACKER® 1038<br>WACKER® TPR<br>WACKER® Silicone Fluids AK (hv) | WACKER® 1038<br>WACKER® 1035<br>WACKER® TPR<br>WACKER® L 656 |                                 | WACKER® 1038<br>WACKER® TPR<br>WACKER® W 23                                    |
| Levelling                        |                      | WACKER® Silicone Fluids AK (mv)<br>WACKER® TPR                                      |                                                                |                                                              |                                                                     |                                                                |                                                              | WACKER® Silicone Fluids AK (mv) |                                                                                |
| Wetting                          |                      | WACKER® Silicone Fluids AK (lv, mv)                                                 |                                                                |                                                              |                                                                     |                                                                | WACKER® L 053<br>WACKER® L 066 (antifog)                     |                                 | WACKER® Silicone Fluids AK (mv)                                                |

# SELECTION GUIDE FOR EMULSIONS

| Product Recommendations             |                      |                                                                                      |                                          |                                                                    |                                  |                                                                                      |                                 |                                                      |                                                                    |
|-------------------------------------|----------------------|--------------------------------------------------------------------------------------|------------------------------------------|--------------------------------------------------------------------|----------------------------------|--------------------------------------------------------------------------------------|---------------------------------|------------------------------------------------------|--------------------------------------------------------------------|
|                                     | Target Application ➡ | Exterior Conditioner, Polish and Wax                                                 | Exterior Trim Conditioner and Protectant | Tire and Rubber Care                                               | Wash, Wax and Rinse Aid          | Interior Trim Conditioner and Protectant                                             | Glass Cleaner and Protectant    | Upholstery Care                                      | Leather Conditioner and Care                                       |
| Application Benefit ↴               |                      |                                                                                      |                                          |                                                                    |                                  |                                                                                      |                                 |                                                      |                                                                    |
| Gloss/Shine                         |                      | WACKER® E 10<br>WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157<br>WACKER® E 1044 |                                          | WACKER® E 1044<br>WACKER® E 3157<br>WACKER® E 3154                 |                                  | WACKER® E 10<br>WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157<br>WACKER® E 1044 | WACKER® NE 4720 (organic glass) | WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157   | WACKER®E 10<br>WACKER® E 3154<br>WACKER® E 3157                    |
| Color Enhancement                   |                      | WACKER® E 22<br>WACKER® E 1656<br>WACKER® E 1044                                     |                                          | WACKER® E 22<br>WACKER® E 1044<br>WACKER® E 3157                   |                                  | WACKER® E 22<br>WACKER® E 1656<br>WACKER® E 1044                                     |                                 | LIOSIL® HC 603 E<br>LIOSIL® HC 621 E<br>WACKER® E 22 |                                                                    |
| Durability/<br>Detergent Resistance |                      | WACKER® E 32<br>WACKER® E 37<br>WACKER® E 22                                         | WACKER® E 22<br>WACKER® E 1044           | WACKER® E 37<br>WACKER® E 1044<br>WACKER® E 1656                   | WACKER® E 1656<br>WACKER® E 32   | WACKER® E 22<br>WACKER® E 37<br>WACKER® E 32                                         |                                 |                                                      | WACKER® E 22<br>WACKER® E 32<br>WACKER® E 37                       |
| Ease of Use                         |                      |                                                                                      |                                          | WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157                 |                                  |                                                                                      |                                 |                                                      | WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157                 |
| Water Beading                       |                      | WACKER® E 32<br>WACKER® E 37                                                         |                                          | WACKER® E 32<br>WACKER® E 37<br>WACKER® E 1656                     | WACKER® E 37<br>WACKER® E 32     | WACKER® E 37                                                                         | WACKER® E 37                    |                                                      | WACKER® E 37<br>WACKER® E 32                                       |
| Levelling                           |                      |                                                                                      |                                          | WACKER® E 10<br>WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157 |                                  |                                                                                      |                                 |                                                      | WACKER® E 10<br>WACKER® E 3154<br>WACKER® E 3155<br>WACKER® E 3157 |
| Wetting                             |                      |                                                                                      |                                          |                                                                    | WACKER® E 3154<br>WACKER® E 3155 |                                                                                      |                                 |                                                      | WACKER® E 3154<br>WACKER® E 3155                                   |

# AUTOMOTIVE CARE MADE EASY

If you wish to know more about our global as well as regional products, please reach out to your local sales manager or go to [www.wacker.com/contact](http://www.wacker.com/contact). Guide recipes are available upon request.

# CREATING TOMORROW'S SOLUTIONS

## A Diverse Array of Products for Growing Markets

Our product portfolio ranges from silicones, binders and polymeric additives all the way up to bioengineered pharmaceutical actives. Rounding these out is hyperpure silicon for semiconductors and solar applications.

## Innovations That Improve Quality of Life

Resource scarcity, climate change, urbanization: the challenges of our time demand new responses. In our search for solutions, we invest some 3.5% of our annual sales in research and development. With their emphasis on using energy efficiently and protecting the climate and our environment, our products are already improving quality of life for people all over the world.

## Global Knowledge for Local Markets

When you work with WACKER, you have 100 years of chemistry expertise at your disposal, with access to the research findings and best practices of our experts throughout the world. Our knowledge base consists of a network of 22 technical centers, 14 training centers and our basic research center.

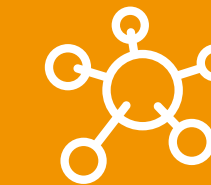
**And most importantly: we are there wherever you need us – worldwide. Our local specialists know your markets and speak your language. Working with them, you will find innovative solutions that win over your customers and make you more competitive.**

### Follow us:

Find us on LinkedIn, YouTube, X and Instagram, and we'll keep you up to date on the latest innovations and discuss current issues with you.



All figures are based on fiscal 2023.



## Silicones and Polymers

3,200 specialty products from organic and inorganic chemistry



## Global Market Leader

In dispersions and dispersible polymer powders based on vinyl acetate-ethylene (VAE), in building-protection silicones and in the production of cyclodextrin and cystein.



## Globally Active

Sites worldwide

- Headquartered in Munich
- 27 production sites in Europe, Asia and the Americas
- 22 technical centers
- 14 WACKER ACADEMY training centers
- 48 sales offices



**Employees: 16,400**



## Total Sales

€6.4 billion



**WACKER**

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[www.wacker.com](http://www.wacker.com)

The data presented in this medium are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this medium 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.