

GLOSSY EXTERIOR SURFACES!

ULTRAMID® DEEP GLOSS S3K – THE POLYAMIDE OF CHOICE FOR A HIGH-GLOSS FINISH ON CAR EXTERIORS



 **BASF**

We create chemistry

DEEP GLOSS

Ultramid® Deep Gloss S3K

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Ultramid® Deep Gloss S3K

THE IDEAL POLYAMIDE FOR A HIGH-GLOSS FINISH ON CAR EXTERIORS

Ultramid® Deep Gloss, the specialty polyamide by BASF for high-gloss car components, is now also available for exterior surfaces. It has a balanced property profile that does not require lacquering:

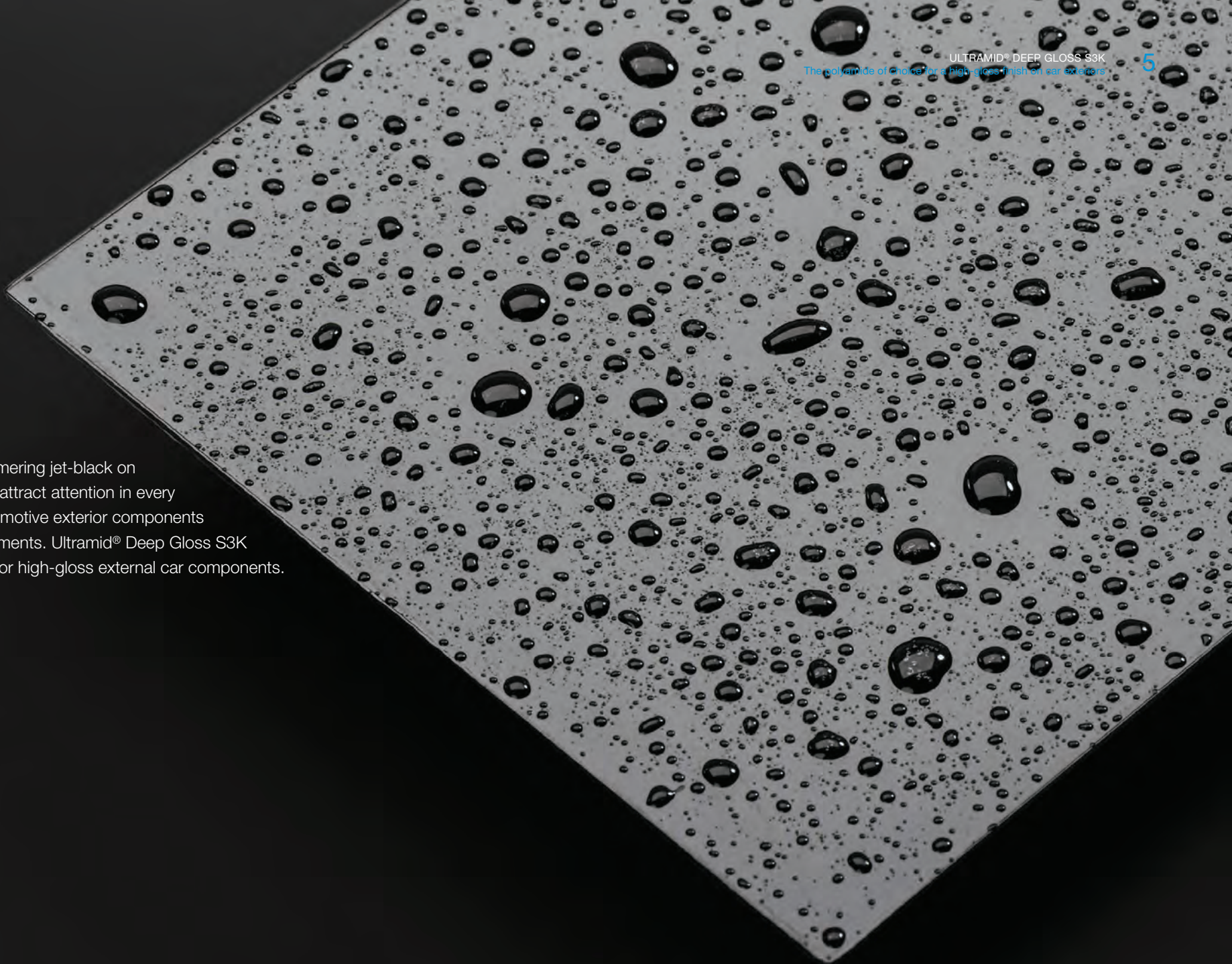
- high degree of gloss
- superior chemical resistance
- outstanding resistance to road salt
- excellent resistance to scratches
- superb UV resistance
- based on a high proportion of renewable materials

Additional features of Ultramid® Deep Gloss S3K:

- processing in one single step (mold-in color)
- no lacquering necessary, design for recycling
- shiny and tactile elements are combined in one component
- suitable for crash parts
- mechanically recyclable
- higher degree of design freedom compared to lacquered applications



Reflective surfaces in shimmering jet-black on vehicles are guaranteed to attract attention in every scenario. Materials for automotive exterior components have high technical requirements. Ultramid® Deep Gloss S3K is BASF's ideal polyamide for high-gloss external car components.



Ultramid® Deep Gloss S3K

COLORFUL SHINE AND HIGH RESISTANCE FOR CAR EXTERIORS

Mold-in color: high-quality surfaces right after injection molding

Applications on car exteriors require glossy surfaces that are resistant to UV and road salt, offer design freedom and can be produced cost-effectively and within only a few work processes. Thanks to its supreme durability, Ultramid® Deep Gloss S3K is an optimal choice for external applications:

- antenna housing
- functional components, such as radiator grills
- panels, such as B pillars
- grids for fog lights
- mirror casing or decorative parts
- Wallbox applications

It is not necessary for the components to receive a follow-up treatment with lacquer or any other finishes. Ultramid® Deep Gloss S3K shortens processing and can reduce energy requirements, as well as the environmental footprint of the overall component.



Ultramid® Deep Gloss S3K

ALL FEATURES AT A GLANCE

Single-step process for cost-efficient series production – components boast a high-quality surface right after injection molding

- detailed illustration of structured tool surfaces
- high flowability for the realization of slimmer and longer paths at low pressure
- reduced water absorption leads to improved dimensional stability
- excellent characteristics typical of polyamides

	Unit	Ultramid® Deep Gloss S3K	
Color		Piano Black	
Moisture absorption (23 °C/50% r.F.)	%	1.8	
MVR (275 °C/5 kg)	cm ³ /10 min	90	
Tensile modulus	MPa	2,300	1,000
Yield stress	MPa	63	43
Yield strain	%	4.4	23
Charpy impact strength (-30 °C)	kJ/m ²	>100	>100
Charpy notched impact strength (23 °C)	kJ/m ²	6.9	23.8
Charpy notched impact strength (-30 °C)	kJ/m ²	6.7	5.8

Ultramid® Deep Gloss

DURABLE AND HIGH-QUALITY SURFACES FOR CAR EXTERIORS

Ultramid® Deep Gloss: UV test data

Standard	Length of exposure	after exposure to weather			after washing			after polishing		
		dE	Grey scale	Gloss retention (20°)	dE	Grey scale	Gloss retention (20°)	dE	Grey scale	Gloss retention (20°)
Kalahari climate in accordance with PV3929	1,500 h	1.1	4.5	101 %	0.8	4.5	102 %	0.7	4.5	86 %
	3,000 h	1.2	3.5	92 %	0.7	3.5	88 %	0.9	4.0	88 %
Florida climate in accordance with ISO 4892-2A	1,600 h	1.8	4.5	86 %	1.0	4.5	98 %	0.5	5.0	93 %
	3,200 h	6.1	2.5	38 %	3.95	3.0	80 %	3.5	5.0	91 %

Standard	Exposure to light	after exposure to weather			after washing		
		dE	Grey scale	Gloss retention (20°)	dE	Grey scale	Gloss retention (20°)
SAE J 2527-C1	1,250 kJ/m ²	1.5	4	87 %	1.2	4.0	94 %
	2,500 kJ/m ²	3.4	2.5	67 %	1.6	3.0	89 %

Ultramid® Deep Gloss S3K

SUPREME GLOSS RETENTION, EVEN AFTER OUR CAR WASHING TEST

Ultramid® Deep Gloss S3K: Car wash test data

	Amtec Kistler test (in accordance with ISO 20566:2013)	Ultramid® Deep Gloss S3K
After the test	Gloss retention 20°	30%
	Gloss retention 60°	64%
Polished	Gloss retention 20°	52%
	Gloss retention 60°	74%



We sustainability

Ultramid® Deep Gloss S3K, our contribution to conserving limited resources, consists of around 50 % bio-based materials.

Multiply your design

CONSULTATIONS THAT GO BEYOND THE MATERIAL

In light of increasingly shorter innovation cycles, efficient collaboration between BASF and our customers becomes increasingly important. To ensure our customers receive innovative solutions in the best possible way and depending on the type of project, material consultations at our Creation Center will be a combination of Ultrasim®, our CAE simulation tool, and BASF engineers.

Creation Center – support in every phase of the design process

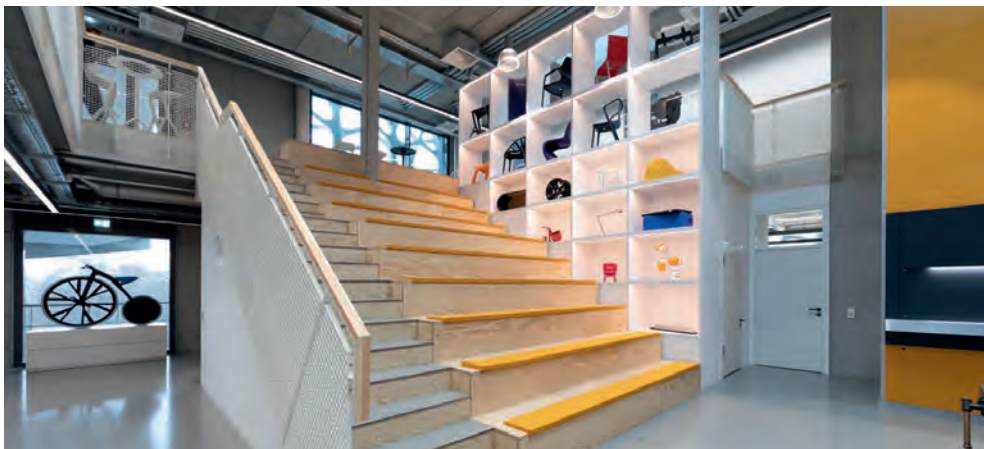
BASF provides in-depth customer support during product development and material substitution. To achieve this, the Creation Centers' designers and engineers will act as strategic consulting partners for design-oriented sectors. They will help with questions

about designs suitable for plastic, appropriate processing methods and tools, surfaces, and forms and functions. In addition, pigment specialists will help implement color ideas accurately.

Ultrasim® – precise component design

Ultrasim®, BASF's CAE simulation tool, can design components across all industries and pinpoint where components will fail before production. A 3D rendering accurately predicts design flaws through mathematical component optimization and can help determine the best possible design under the given conditions. Ultrasim helps reduce costs and time spent on prototypes or extensive adjustments of tools.

The right materials, an experienced, interdisciplinary team and excellent simulation opportunities – together with our customers, we develop the best possible solutions for your requirements.



Visit our website to find out more:

www.plastics-rubber.basf.com

You can find further information about

Ultramid® Deep Gloss via:

www.ultramid-deepgloss.basf.com

**For any technical questions about the products,
please contact our Ultra Infopoint:**



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