



OWL WATERPROOFING SOLUTIONS

TECHNICAL DATA SHEET

Lava 20 Clear Top Coat

Transparent Liquid Polyurethane Waterproofing Coating

Product Description

Lava 20 Clear Top Coat is a long-lasting polyurethane waterproofing coating that is translucent & tough. Its high-tech coating is transparent and elastic even after aging and is UV-stable, non-yellowing, weather-stable, alkali and chemical resistant.

Lava 20 Clear Top Coat shields and waterproofs natural surfaces from acid rain, fog, frost, and water penetration. Plastic surfaces that have oxidized and aged appear more transparent after being coated with Lava 20 Clear Top Coat. Damaged glass surfaces are waterproofed by it.

For sand carpet floor coating applications, Lava 20 Clear Top Coat is also utilized as a transparent binder resin, particularly for external applications where flexibility and UV stability are required.

Lava 20 Clear Top Coat is using a unique curing system (moisture triggered), and unlike other similar systems it does not react with moisture (moisture-cured) and does not form bubbles.

PRODUCT INFORMATION

Chemical Base Cold-curing, solvent-based, single-component aliphatic polyurethane

Packaging 5 or 20 kg metal pails

Colour Transparent

Shelf Life 9 months from date of production

Advantages

- Easy to use (roller or airless spray);
- A flawless, jointless membrane is formed when applied.
- UV stable
- Resistant to raw sewage and frost;
- The waterproofed surface can be used for domestic (light) foot traffic
- Resistant to detergents, oils, seawater, and household chemicals.
- Provides water vapor permeability, allowing the surface to breathe
- Excellent heat resistance, preventing it from softening
- Excellent weather resistance
- Excellent adhesion to ceramic tiles, and excellent adherence to glazed surfaces.

Main Uses

Waterproofing of:

- Decks and patios
- Wood
- Preservation of Natural Stones
- Porcelain Surfaces
- Glass and Crystal
- Opaque Plastics (like Polyacrylate and Polycarbonate) Sand carpet outdoor floor sealing applications using adhesive resin

Consumption

0,800 - 1,200 kg/m² in two or three layers

This coverage is based on application by roller onto a smooth surface in optimum conditions. Factors like surface porosity, temperature and application method can alter consumption.



OWL WATERPROOFING SOLUTIONS

Technical Data*

PROPERTY	RESULTS	TEST METHOD
Composition	Polyurethane high-solids pre-polymer	
Elongation at Break	220%	DIN EN ISO 527
Tensile Strength	>20 N/mm ²	DIN EN ISO 527
Gloss retention after 2000h of accelerated aging (DIN EN ISO 4892-3, 400 MJ/m ²)	Good	DIN 67530
Surface chalking after 2000h of accelerated aging	No chalking observed. Chalkina arade 0	ASTM G154
Hardness (SHORED Scale)	25	ASTM D 2240
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Permeability to CO ₂ (measured in CE system)	0.39g/m ² d	EN 1062-6
Water vapour permeability (measured in CE system)	5.15g/m ² d	EN ISO 7783
Capillary absorption and permeability to water (measured in CE system)	0.008 kg/m ² .h ^{0.5}	EN 1062-3
Adhesion to absorbent ceramic tile	>2,0 N/mm ² (ceramic tile failure)	EN 1542
Hydrolysis (5% KOH, ?days cycle)	No significant elastomeric change	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Tack Free Time	6-8 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	24 hours	
Final Curing time	7 days	
Chemical Properties	Good resistance against detergents, seawater and oils.	

Certifications

EN1504-2: Surface protection for concrete. (0.8kg Lava 20 Clear Top Coat)

CE

Application as a Transparent Waterproofing Coating.

Surface Preparation

For the best quality and longevity, careful surface preparation is necessary. The surface must be free of any pollution that could compromise the membrane's adhesion and be clean, dry, and sound. No more than 5% of the total weight should be moisture. At least 28 days must pass before new concrete constructions are ready. It is necessary to remove dust, organic materials, grease, oils, and old coatings.

ATTENTION: Surfaces with trapped moisture (e.g. trapped moisture under tiles) must be left to dry completely (max. 5% moisture), before the application of Lava 20 Clear Top Coat.

WARNING: Do not apply Lava 20 Clear Top Coat on ceramic surfaces with ascending nitric salts in the joints, without suitable pretreatment. Do not apply Lava 20 Clear Top Coat on surfaces treated in the past with active silane, siloxane, silicon or other water repellents, because of expected poor adhesion. We recommend an adhesion test, if circumstances and surface history are not clear. On marble and granite please perform an adhesion test, to ensure that adhesion is proper.

Repair of cracks and joints:

The careful sealing of existing cracks and joints before the application is extremely important for long lasting waterproofing results. Clean concrete cracks, hairline cracks, expansion joints and control joints of dust, residue or other contamination. Prime locally with Lava 20 Primer and allow 2-3 hours to dry. Fill all prepared cracks and joints with Owl PU Mastic sealant. Allow to cure.



OWL WATERPROOFING SOLUTIONS

Transparent waterproofing membrane

Apply Lava 20 Clear Top Coat over the primed surface, spreading it out using a roller or a trowel with the appropriate teeth until the entire area is coated. Apply a second coat of Lava 20 Clear Top Coat with a roller or brush after 12 hours, but no later than 18 hours. Apply a third coat of Lava 20 Clear Top Coat for improved waterproofing and durable effects.

Attention: Do not apply Lava 20 Clear Top Coat in layers that are thicker than 1 mm of dry film. The ideal temperature range for application and cure is between 5°C and 35°C. High temperature accelerates curing while low temperature delays it. Excessive humidity could have an impact on the finish.

WARNING: While wet, Lava 20 Clear Top Coat and/or Lava 20 SYSTEM are slippery. Sprinkle appropriate aggregates onto the still-wet coating to create an anti-slip surface to prevent slickness on rainy days. To learn more, kindly get in touch with our R+D Department.

For best results, the temperature during application and cure should be between 5°C and 30°C. Low temperatures retard cure while high temperature speeds up curing. High humidity may affect the final finish and might create surface pinholes/bubbles.

Storage Conditions: Lava 20 Clear Top Coat pails should be stored in dry and cool rooms. Protect the material against moisture and direct sunlight. Storage temperature: 5°-30°C. Products should remain in their original, unopened containers, bearing the manufacturers name, product designation, batch number and application precaution labels.

Lava 20 Clear Top Coat contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data Sheet.

PROFESSIONAL USE ONLY

Safety measures

Our technical advice for use, whether verbal or written, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We may guarantee only that our products are compliant with their technical specification; correct application of our products therefore falls entirely within your scope of liability and Users are responsible, in any case, for complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice.

*All values represent typical values and are not part of the product specification.



OWL WATERPROOFING SOLUTIONS

Lava 20 Top Coat (Coloured: Dark Grey, White etc.)

TECHNICAL DATA SHEET

UV-resistant Aliphatic Polyurethane Top-Coat

Product Description

Lava 20 is a coloured single-component polyurethane material which can be used over Lava 20 to prolong the life of the system even further or change the colour.

The Lava 20 Top Coats can be manufactured in different colours; generally speaking white and dark grey is readily available whilst other colours can be produced on special request; simply contact Owl Waterproofing Solutions should you require other coloured Top Coats.

The Lava 20 Top Coats are flexible coatings that have a fluid application; also Lava 20 Top Coats are slightly harder than Lava 20 and do not degrade; further Lava 20 Top Coats are UV resistant and therefore do not deteriorate from exposure to UV & rain etc.

Lava 20 Top Coats are breathable and dry quickly (about 15 minutes to dry.)

Advantages

- Easy to use (roller or airless spray).
- Improves the waterproofing membrane's resilience to stress and corrosion.
- Offers high solar reflectivity, which helps with thermoinsulation.
- Color and UV resistance.
- Produces a glossy, cleanable surface
- Does not exhibit the aromatic polyurethane coatings' grainy effect;
- Maintains its mechanical qualities across a temperature range of - 40°C to +90°C
- Water, heat, and frost resistant.

Main Uses

- Roof waterproofing
- Roof, Terrace, balcony, and patio waterproofing
- Waterproofing footpaths, walkways, podium decks and auto decks etc.
- Waterproofing flat or sloped roofs, balconies and decks etc

PRODUCT INFORMATION

Chemical Base One-component, solvent based, cold curing aliphatic polyurethane

Packaging 5 kg or 20 kg pails

Colour White, Grey, Dark Grey & Other Colours Available on Request

Shelf Life 9 months from date of production

Consumption

120-250 gr/m² in one or two layers.

Its coverage is based on effective roller application onto a flat surface under ideal circumstances. Consumption can be affected by elements like as surface porosity, temperature, humidity, application technique, and finish necessary.

Technical Data-

PROPERTY	RESULTS	TEST METHOD
Composition	Pigmented Aliphatic moisture triggered Polyurethane polymer. Solvent based	
Resistance to Water Pressure	No Leak	DIN EN 1928
Elongation at break	289%	DIN EN ISO 527
Tensile strength	3,72 N/mm ²	DIN EN ISO 527
Elongation at break after 2000h of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	372 %	DIN EN ISO 527
Tensile strength after 2000h of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	2,68 N/mm ²	DIN EN ISO 527
Gloss retention after 2000h of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	Good	DIN 67530
Surface chalking after 2000h of accelerated ageing (DIN EN ISO 4892-3, 400 MJ/m ²)	No chalking observed. Chalking grade 0	DIN EN ISO 4628-6
Adhesion to the Lava20	>2 N/mm ²	ASTM D 903
Hardness (Shore A Scale)	65	ASTM D 2240 (15")
Solar Reflectance (SR) (white color)	93.5%	ASTM E903-96
UV accelerated ageing, in the presence of moisture	Passed - No significant changes	EOTA TR-010
Hydrolysis (5% KOH, 7 days cycle)	No significant elastomeric changes	Inhouse Lab
Service Temperature	-40°C to +90°C	Inhouse Lab
Tack Free Time	1-3 hours	Conditions: 20°C, 50% RH
Light Pedestrian Traffic Time	12 hours	
Final Cure time	7 days	
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater and oils.	



OWL WATERPROOFING SOLUTIONS

Application

Surface Preparation

For the best quality and longevity, careful surface preparation is necessary.

The surface must be free of any pollution that could compromise the membrane's adhesion and be clean, dry, and sound. No more than 5% of the total weight should be moisture. Compressive strength of the substrate should be at least 25 MPa, and cohesive bond strength should be at least 1.5 MPa. At least 28 days must pass before new concrete constructions are ready. A grinding machine must remove dust, filth, fats, oils, organic materials, and old, loose coatings. Potential surface imperfections must be smoothed off. Grinding dust and any loose surface fragments must be completely cleaned.

Top Coat

Before using, thoroughly mix the Lava 20 Top Coat.

Apply the Lava 20 Top Coat in one or two layers using a roller, brush, or airless spray.

Let the two layers to cure for 3-6 hours (but no longer than 36 hours).

The ideal temperature range for application and cure is between 5° c and 35°C. High temperatures hasten curing while low temperatures delay it. Excessive humidity could have an impact on the finish.

WARNING: When wet, the Lava 20 Top Coat and/or Lava 20 System are slick. Sprinkle appropriate aggregates onto the still-wet coating to create an anti-slip surface to prevent slickness on rainy days. For further information, please contact Owl Waterproofing Solutions.

Packaging

Lava 20 Top Coat is available in metal pails of 5 kg & 20 kg. Pails should be kept for up to nine months in cool, dry areas. The material needs to be protected from moisture and direct sunshine. 5°C to 30°C C for storage. Items must be kept in their original, unopened packaging with labels that clearly state the manufacturer, the product name, the batch number, and any application warnings.

Safety Measures

Lava 20 Top Coat contains isocyanates. See information supplied by the manufacturer. Please study the Safety Data sheet.
PROFESSIONAL USE ONLY

Our technical advice for use, whether verbal or written, is given in good faith and reflect the current level of knowledge and experience with our products. When using our products, a detailed object-related and qualified inspection is required in each individual case in order to determine whether the product and /or application technology in question meets the specific requirements and purposes. We may guarantee only that our products are compliant with their technical specification; correct application of our products therefore falls entirely within your scope of liability and Users are responsible, in any case, for complying with local legislation and for obtaining any required approvals or authorizations, when necessary, either for their purchase and/or for their use. Values in this technical data sheet are given as examples and may not be regarded as specifications. For product specifications contact our R+D department. The new edition of the technical data sheet supersedes the previous technical information and renders it invalid. It is therefore necessary that you always have to hand the current code of practice. * All values represent typical values and are not part of the product specification.