

## Orbit-Hausfarbe LEF

Solvent and plasticizer-free pure acrylate paint for thin-film coats in exteriors and interiors for universal use.



### Product characteristics

<b>Properties</b>	<ul style="list-style-type: none"> <li>• Preventive concrete protection (impermeable to CO<sub>2</sub>)</li> <li>• Self-cleaning effect due to photocatalysis</li> <li>• Without biocides, solvents and plasticizers</li> <li>• High resistance against writing effect (stress whitening)</li> <li>• Colour resistance according to BFS-Fact Sheet No. 26: Class A</li> <li>• Wet scrub resistance class 1</li> <li>• Extreme adhesion on nearly all kinds of substrates</li> </ul>
<b>Areas of application</b>	Exterior and interior
<b>Suitable substrates in detail</b>	<ul style="list-style-type: none"> <li>• Existing sound and organic paint layers</li> <li>• Concrete surfaces</li> <li>• Glass fabrics</li> <li>• Stressed wall areas</li> </ul>

### Material description

<b>Binder</b>	Pure acrylate dispersion
<b>Ingredients</b>	<p>Titanium dioxide</p> <p>Fillers</p> <p>Additives</p>
<b>Density</b>	1.4 kg/l
<b>Water vapour permeability</b>	V 2 (> 0.14 and <1.4 m)
<b>Preventive concrete protection (sd-CO<sub>2</sub>-value)</b>	> 50 m
<b>Water absorption coefficient (w-value)</b>	W3 ( $\leq 0,1 \text{ kg/m}^2 \text{ h}^{0,5}$ )
<b>Maximum particle size</b>	Fine
<b>Average consumption (short text)</b>	approx. 120 - 180 ml/m <sup>2</sup>
<b>Average consumption</b>	The consumption varies depending on the application technique and the substrate. It is therefore advisable to determine the exact consumption figure by producing a sample area.
<b>Colour shade</b>	<p>White</p> <p>Base 1</p> <p>Base 2</p> <p>Base 3</p>

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<b>Suitable tinting paints</b>	Tinting with system-matching tinting pastes via the ALLFAcolor tinting machine, ready-mixed at the factory or with commercially available tinting and full colour paints or tinting concentrates. Please note that with tinted products the specified properties may change.
<b>Gloss level</b>	Silk-mat
<b>Class accord. to BFS fact sheet no. 26</b>	A
<b>Group accord. to BFS fact sheet no. 26</b>	Groups 1 to 3 depending on colour shade
<b>Storage</b>	Cool, but protected from frost
<b>Thinning</b>	Water  First and intermediate coat: 3%, finishing coat preferably unthinned.

### Substrates

<b>Suitable substrates</b>	<ul style="list-style-type: none"> <li>• All usual mineral substrates (renders/plasters, concrete, masonry)</li> <li>• Gypsum wallboards and gypsum plasterboards</li> <li>• Gypsum plaster</li> <li>• Hardboards</li> <li>• Precast building materials</li> <li>• Adherent existing paint layers</li> <li>• Wood-chip wallpaper</li> <li>• Glass fabrics</li> <li>• All kinds of wood and timber derived products</li> <li>• Plastics and non-ferrous metals</li> </ul>
<b>Substrate conditions</b>	The substrate must be clean, dry, frost-free, firm and sound as well as free from efflorescences, algae, moss, fungal attack, sinter layers and release agents. Follow the building regulations (in Germany VOB, Part C, DIN 18363, Section 3).
<b>Substrate conditions</b>	<p><b>Concrete</b> Remove forming oil, grease and wax by washing with surfactant. Remove any sintered layers mechanically. Check the absorbency of the concrete by wetting tests. In addition, the guidelines according to BFS Fact Sheet No.1 apply for exterior coatings and the guidelines according to BFS Fact Sheet No. 8 for interior coatings.</p> <p><b>Base renders (exterior):</b> Mineral base renders must be thoroughly cured and dry, because otherwise discolouration, in particular with tinted following coats, may occur. As a rule of thumb assume 1 day drying time per mm of layer thickness, but correspondingly longer at low temperatures and high humidity. Excessive temperatures and low humidity also lengthen the setting process. Treat replastered locations with fluosilicate. In addition, the guidelines according to BFS Fact Sheet No. 9 apply.</p> <p><b>Gypsum blocks</b> Adjust the primer to absorbency. With coatings destined to bridge capillary cracks, reinforce completely using a fleece. In addition the guidelines of BFS-Fact Sheet No. 17 apply.</p> <p><b>Gypsum building boards (interior)</b> Adjust the primer to absorbency. With coatings destined to bridge capillary cracks, reinforce the entire surface using a fleece. In addition the guidelines of BSF Fact Sheet No. 12 apply. Ingredients which might penetrate have to be isolated before following coatings.</p> <p><b>Gypsum plaster, gypsum sand plasters etc.</b> Remove any sintered layers. For first coatings take care of a sufficient penetration of the primer (e. g. by using a penetrating primer). Additionally the guidelines of BFS Fact Sheet No. 10 apply.</p> <p><b>Derived timber products (chipboards, OSB-boards etc.) - interior</b> Have to be covered with a suitable gypsum board or gypsum fibre board as otherwise cracks may occur in the area of butt-joints.</p>

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### Aerated concrete - interior:

In case of rooms of high humidity, external walls have to be additionally treated by a moisture guard, applied onto their insides. This can be effected applying a two-component coating like e.g. Hydrofox. In addition the guidelines of BFS Fact Sheet No. 11 apply.

### Base renders (interior):

Mineral base renders must be thoroughly cured and dry, because otherwise discolouration, in particular with tinted following coats, may occur. As a rule of thumb assume 1 day drying time per mm of layer thickness, but correspondingly longer at low temperatures and high humidity. Excessive temperatures and low relative humidity also lengthen the setting process. Treat replastered locations with fluosilicate. In addition, the guidelines according to BFS Fact Sheet No. 10 apply.

### Metal and synthetic substrates

This product can be applied on e.g. zinc, non-ferrous metals etc. With coatings on these substrates, corresponding substrate preparations have to be considered, such as degrease by washing with wetting agent. Corroding substrates must be isolated beforehand by means of appropriate priming coats. Orbit Grund can be used as bonding agent. In addition, the guidelines according to BFS Fact Sheet Nos. 5 + 6 apply.

With coatings on synthetic substrates, preliminary works have to be taken into consideration, such as degrease and sanding. Orbit Grund can be used as bonding agent. Due to the large variety of synthetics, a test area on the concerning substrate is strongly recommended. In addition, the guidelines according to BFS Fact Sheet No. 22 apply.

### Substrate preparations

#### Wooden components

Sand/grind wood surfaces in fibre direction, clean thoroughly and remove seeping wood components such as resin and resin galls. Remove sharp edges.

**Follow BFS-Fact Sheets Nos. 18 and 20.**

#### Iron, steel

Prepare iron and steel as to match standard purity degree SA 21/2 (abrasive blasting) or ST3 (mechanically) in compliance with DIN EN ISO 12944-4.

#### Zinc, rigid PVC

Preparation by ammonia-water solution containing a wetting agent, using a synthetic non-woven abrasive. In compliance with BFS Fact Sheets Nos. 5 and 22 also possible with Gescha MultiStar (universal concentrated detergent) using a non-woven abrasive or by sweep blasting.

#### Aluminium

Clean with nitro-cellulose thinner or phosphoric-acid solution using a synthetic non-woven abrasive, in compliance to BFS Fact Sheet No. 6.

#### Copper

Prepare with Gescha MultiStar (universal concentrated detergent) at a mixing ratio of 1:5 (with water), using a synthetic non-woven abrasive.

#### Existing paint layers

Existing paint layers have to be sanded/grinded and/or leached. Non-sound paint layers must be removed.

## Application

### Application method

Application by brush, roller or spraying

### Spraying data

Spray pressure in bar: 200 (160) / spraying angle: 50° / nozzle size in inch: 0,021 - 0,023 / sieve size in mesh: 60 / approx. thinning: 5%

Low-mist: suitable airless systems with an output of at least 4 L / min.

Working pressure in bar: 70 - 90 / spraying angle: 20° - 50° / nozzle size in inch: 0,021 - 0,023 / sieve size in mesh: 60 / approx. thinning: 5%.

### Coating system

#### Initial coating

**Priming coat** with L-66 Tiefengrund, L-66 Tiefengrund mixed with Grundierfarbe P 1:1, with Tiefengrund LKF or with Tiefengrund W. **Intermediate coating** thinned to max. 3%. **Finishing coating**: preferably unthinned.

#### Initial coating on concrete (exterior)

**Priming coat** with L-66 Tiefengrund, L-66 Tiefengrund mixed with Grundierfarbe P 1:1. Alternatively with MultiGrund 3 in 1LEF. **Intermediate coating** thinned to max. 3%. **Finishing coating** preferably unthinned.

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### Recoatings

**Priming coat** with L-66 Tiefengrund mixed with Grundierfarbe P 1:1, or with Grundierfarbe WP (in case of highly absorbent old coatings also Tiefgrund LKF or Tiefgrund W). **Intermediate coating:** thinned to max. 3%. **Finishing coating:** preferably unthinned.

Due to the great variety of our production range and individual applications, other primers and coating systems are possible. Please refer to our technical service for support.

### Application

The material can be applied by brush, roller or "low-mist" airless system. When painting, pay attention to spread the material liberally and homogeneously, in order to achieve a coat thickness which is necessary for the durability.

### Application hints

Do not apply under a glaring sun, during strong wind or on warm substrates.

### Note

Among other things colour stability depends on the pigment. Organic (true colors) pigments are less colour stable than inorganic (earth colours) pigments. With alkaline substrates and silicate based products only use inorganic colours and pigments. Basically, materials with lower binder capacity should only be tinted in pastel shades. With matt, intensely tinted materials mechanical stress (scratching) may result in bright stripes. In Germany the BFS Fact-Sheet No. 26 applies.

Check tinted paint for colour accuracy prior to the application. Objections regarding the colour shade cannot be accepted after the application.

Plasto-elastic joints should not be coated as the higher elasticity of the sealing mass might cause cracks or discolouration of the coating. In individual cases tests have to be carried out to judge the suitability.

### Practical hints

#### Masking Works

Always use UV-resistant adhesive tapes for exterior works. On completion of the coating, particularly with dispersion paints and / or higher layer thicknesses, immediately remove adhesive tapes, in order to avoid untidy contours.

#### Repairs

Touching up surfaces may be more or less visible, even with using the original coating material. Traces are unavoidable according to BFS Fact Sheet No. 25. Whether a repair is considered as optically disturbing is depending on many parameters, like colour shade, gloss level, layer thickness, substrate, illumination etc. It is advisable to apply a test coating on inconspicuous places.

#### Washing out with early Moisture Load

After the application, an early exposure to moisture (dew, fog, rain) may result in a washing out of additives or emulsifiers off the still not dry coating. This will be visible on the surface as transparent traces with a slightly glossy shine. These additives are water-soluble and disappear under the influence of rain, once the coating is dry. If such surfaces must be directly coated, the traces should be washed off thoroughly.

#### Colour Accuracy / Metamerism

The perception of colour shades is influenced by various parameters, such as light, gloss, angle, structure. Substrates of different degrees of irregularities may have different effects despite having been coated with the same material. Coating materials of the same hue but of different gloss levels also appear to be different. Various materials of the same colour shade that appear to be matching by daylight may show strong deviations in artificial light (metamerism effect). In case of increased requirements on matching colours of different building parts, materials and / or surfaces, the BFS Fact Sheet No. 25, section 4.2.2. can be taken into consideration.

#### Continuous Surfaces

Before processing on continuous surfaces, especially with tinted material, check for colour consistency or mix the required quantity in advance. In order to avoid laps, apply wet-on-wet.

#### Recoating of Joint Sealing Compounds

Basically and if possible do not coat elastic joint sealing compounds. If however required, the coating is only possible provided that the sealing compound and coating material are suitable and compatible according to DIN 52452-4 (in Germany). The higher elasticity of the sealing compound may produce hairline cracks in the coating as well as discolouration of the paint. Due to the large variety of products available on the market, we recommend to produce test areas.

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### Brilliant and intensive ColourShades

Brilliant and intensive colour shades normally have a lower opacity due to the pigments used. The application of a first coat in a similar defined pastel tint (shown in online price recommendations, ALLFAcolor tinting machine) normally avoids having to apply a layer on top of the standard rule of coating. The stability of brilliant and intensive colour shades is influenced by various parameters such like type of binder, pigment, substrate, shading. A prognosis can only be issued approximately based on BFS Fact Sheet No. 26. On darker shades in combination with matt / silk matt interior paints mechanical stress (scratching, rubbing) may result in bright stripes (writing effect). To avoid this effect in exposed areas, always use specifically designed interior paints.

### Sidelight

Unfavourable lighting conditions (sidelight) may occur for instance after the subsequent installation of lights. This fact must be known before works. Specific requirements on evenness and uniformity of the coating have to be previously agreed upon.

<b>Temperature limit</b>	Between + 5° C and + 30° C for substrate and ambient air during processing and drying.
<b>Drying time</b>	At + 20° C for substrate and ambient air and 65% relative humidity (RH), allow to dry for approx. 4 hours. Lower temperature or a higher humidity extend the drying time.
<b>Tool cleaning</b>	Immediately after use with water and soap

## Information

<b>General information</b>	Keep out of reach from children. Ensure good ventilation during use and drying. Do not eat, drink or smoke while using the paint. In case of contact with eyes or skin, immediately and thoroughly rinse with water. Do not allow to enter drains, waterways or soil. Clean tools immediately with water and soap. Do not breathe vapour/spray.
<b>Hazard statements and safety advice</b>	Contains: 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction.
<b>Declaration of ingredients</b>	Poly acrylate dispersion, titanium dioxide, calcium carbonate, siliceous fillers, water, additives, preservatives (methylisothiazolinone, benzisothiazolinone)
<b>Observe safety data sheets</b>	Further details: See Safety Material Data Sheet (MSDS)
<b>Category VOC</b>	EU limit value for the VOC contents of this product: (Category A/c) 40g/l (2010). This product contains max.
<b>VOC content (in gram per litre)</b>	< 1 g/l
<b>WHC</b>	1 (weakly water-polluting)
<b>Waste disposal</b>	Only completely emptied containers should be given for recycling. Dispose containers with residues of liquid product via waste collection point accepting old paints and enamels. Dispose dried hardened product residues as construction site/demolition/ municipal or domestic waste.

## Container size

Content		EAN code	Article no.
12,5 L	Weiß	4002822712860	559861
12,5 L	Basis 1	4002822712914	559866
5 L	Basis 1	4002822712921	559867
12,5 L	Basis 2	4002822029395	922469
5 L	Basis 2	4002822029401	922470
11,75 L	Basis 3	4002822712938	559868
4,7 L	Basis 3	4002822712945	559869

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### System specific and system completing products

Grundierfarbe WP

Acryl-Streichvlies

Tiefgrund LKF

This data sheet cannot deal with all types of application arising in practice. Therefore, we cannot be held responsible for their content. These instructions do not release the purchaser / applicator from his responsibility of professionally examining the substrate and determining the suitability of the product in consideration of the project characteristics. In case of queries please request the technical assistance of ALLIGATOR FARBERWERKE.