KLB-SYSTEM POLYURETHAN
PU 414 FLAIR

Low-emission, decorative 2-component polyurethane design coating with a special textured effect for decorative floor coverings.

Packaging units

Article no.	Content (kg)	Units/pallet
AK0008-50	10.00 kg	30
AK0008-30	30.00 kg	12

Product characteristics

Mixing ratio parts by weight	A : B = 3 : 1
Mixing ratio parts by volume	A : B = 100 : 44
Processing time	10 °C / 50 °F : 40 - 50 min. 20 °C / 68 °F : 20 - 25 min. 30 °C / 86 °F : 15 - 20 min.
Processing temperature	Minimum 10 °C / 50 °F (room and floor temperature)
Curing time (accessibility)	10 °C / 50 °F : 30 - 36 hrs. 20 °C / 68 °F : 18 - 24 hrs. 30 °C / 86 °F : 15 - 20 hrs.
Curing	2 - 3 days until mechanical load at 20 °C / 68 °F 7 days until chemical load at 20 °C / 68 °F
Further coatings	After 18 - 24 hours, but after 48 hours at the latest at 20 °C / 68 °F
Consumption	Approx. 2.4 - 2.8 kg/m² for 2 mm layer thickness
Layer thickness	Approx. 1.5 - 2.5 mm
Colours	Available in selected colour tones – see chart!
Shelf life	12 months (originally sealed)

Product description

KLB-SYSTEM POLYURETHAN PU 414 FLAIR is suitable for the creative application of joint-less, decorative floor coatings on interior surfaces, that give every room an individual and unmistakable FLAIR. There is available a separate colour chart with many trendy colours.

The pigmented coating is low-emission and therefore particularly advantageous for recreation rooms. **KLB-SYSTEM POLYURETHAN PU 414 FLAIR** cures without shrinkage to an elastic covering with good walking comfort. The coating is especially used in areas with decorative requirements, such as retail spaces, offices, doctor's surgeries, fitness areas, etc.

The flexible floor coating is generally applied in layers starting at 1.5 mm. Application can be done in individual structures using a coating knife, trowel or spiked roller. It is ideal for use on various substrates and also in renovation projects. A matt, elastic top sealer like **KLB-SYSTEM POLYURETHAN PU 805 E** is applied on top of it. The coating offers good abrasion resistance qualities and is easy to clean.

The elastic flooring can be applied in layers starting at 1.5 mm and is also suitable for deformable substrates, like mastic asphalt, or even older substrates, like reconstruction areas.

KLB-SYSTEM POLYURETHAN PU 414 FLAIR offers good resistance to many common household chemicals, water, saline solutions, diluted acids and bases. Conditionally resistant to solvents.

Area of application

- Comfortable, jointless floor coating for light up to medium mechanical load for resident and commercially used areas without any industrial load.
- For highly decorative, non-yellowing, smooth floor surfaces with a special look, e.g. show rooms, living rooms, and office spaces.
- Use as coating on rigid substrates and those susceptible to deformation, like mastic asphalt, wood or mixed material substrates.
- As low-emission coating for recreation rooms, such as sales or office rooms, exhibitions, kindergartens, doctor's offices, schools and many more.

Product features

- decorative, appealing surface
- available in various trendy colours
- highly individual surfaces
- low-emission formulation
- compliant with AgBB and suitable for recreation rooms
- elastic
- good walking comfort
- suitable for renovations
- light-stable for the most part
- free of deleterious substances against varnish

Technical data

Viscosity - Component A+B	approx. 4900	mPas	DIN EN ISO 3219 (23 °C / 73.4 °F)
Solid content	> 99.7	%	KLB method
Density - Component A+B	1.35	kg/l	DIN EN ISO 2811-2 (20 °C / 68 °F)
Weight loss	0.2	weight-%	KLB method after 28 days
Water absorption	< 0.2	weight-%	DIN 53495
Breaking strain	97	%	DIN EN ISO 527-3
Shore-hardness D	50	-	DIN 53505 (after 28 days)
Abrasion (Taber Abraser)	30	mg	ASTM D4060 (CS10/1000)

The values established in tests are average values. Deviations from the product specification may occur.

Tests

External test certificates are available:

- Slip resistance grade R9 and R10 possible, according to DIN 51130 and BGR 181.

Note:

Please ask for the tested system build-up!

Build-up of coats

System build-up **based on AgBB with intermediate scattering**

- Prepare the substrate like concrete, cement screed, etc. mechanically, preferably by shot-blasting.
- Prime with a low-emission KLB primer, e.g. **EP 57, EP 58, EP 53 Spezialgrund AgBB** or **EP 54 RAPID U,** consumption approx. 0.3 - 0.4 kg/m².

- Openly scattering the fresh surface with quartz sand 0.3/0.8 mm, consumption approx. 0.5 - 1.0 kg/m².
- If necessary, apply a pigmented levelling layer either using a hard PU coating such as **PU 420** or **PU 421**; or alternatively, a smooth PU coating like **PU 425** or **PU 426**. Please refer to the product information sheets for the consumptions.
- **Important note:** the pigmented opaque levelling or base layer (e.g. **PU 420, PU 421, PU 425** or **PU 426**) should be applied in a matching colour to the **PU 414 FLAIR** coating. Seek advice if necessary.
- Apply **PU 414 FLAIR**, e.g. with a toothed trowel **Toothed Blade KLB-RS4** or Pajarito 48, consumption approx. 2.4 - 2.8 kg/m². After 10 to 20 minutes, roll out with a spiked roller. The surface can then be structured and influenced by individual designing with a coating knife or trowel, etc.
- Apply a transparent top sealer with **PU 805 E**, consumption 0.150 - 0.180 kg/m². By mixing structuring agent **Strukturmittel RHX** into **PU 805 E** - or by using **PU 805 E R10**, the slip resistance can be adjusted up to grade R11.

Substrate

The substrate to be coated must be even, dry, free of dust, sufficiently resistant to tension and compression as well as be free from weakly-bonded components or surfaces. Materials impairing adhesion such as grease, oil and paint residues should be removed with suitable measures. For concrete, moisture content must not exceed 4.5 CM-%, remaining residual humidity. The possibility of moisture ingress from the rear must be permanently excluded. Observe the information issued by the trade associations, e.g. the most recent versions of BEB worksheets KH-0/U and KH-0/S as well as the notes provided in the product information for the recommended KLB base coats, like **EP 57, EP 58, EP 53 Spezialgrund AgBB** or **EP 54 RAPID U**. The substrates to be coated should be prepared mechanically. The prepared area must be saturated, pore-free and primed carefully. If the substrate has not been primed to be pore-free, bubbles and pores can develop in the coating due to air rising from the substrate. In case of doubt, we recommend testing on a trial surface. The surface can be scattered openly with approx. 0.5 - 1.0 kg/m² of quartz sand 0.3/0.8 mm in order to improve adhesion.

Mixing

Combo-packaging will be supplied in the correctly measured mixing ratio. The package of Component A has sufficient volume for the entire packaging unit. Empty all of the hardener compound B into the resin A package. Blend with a slow speed mixer (200 - 400 r/pm) for at least 2 - 3 minutes until a homogeneous, streak-free compound forms. To prevent mixing errors, empty ("repot") the entire resin/hardener mixture into a clean container and mix it once again briefly.

Processing

Process the material immediately after mixing and spread it over the prepared surface with a coating knife or toothed trowel in a uniform layer. The product is adjusted for optimum deaeration, however, rolling with a spiked roller is recommended to improve the wetting of the substrate, to optimise levelling and to remove remaining air bubbles. Re-rolling with the spiked roller should be carried out time-delayed after 10 - 20 minutes. The surface appearance can then be structured and influenced individually by finishing it with a coating knife or trowel, etc. To work seamlessly, always work “fresh-in-fresh” and define work areas before starting. We recommend creating sample areas prior to the first application.

Sealing of the **PU 414 FLAIR** covering layer must be done with clean overshoes. Nail shoes must not be used.

Polyurethane coatings are sensitive to moisture when fresh, the humidity specifications must therefore be observed. Coating dew-damp substrates and the use of damp sand as well as perspiration will cause the material to foam and must be avoided. Therefore, the conditions should be measured before starting work.

Floor and air temperature must not fall below 10 °C / 50 °F and humidity should not exceed 75 %. The material to be processed must be at room temperature during processing.

Within the recommended processing conditions, the floor temperature may be a maximum of 3 °C colder than the ambient room air temperature to exclude a dew point on the surface to be coated and the fresh coating.

If a dew-point situation arises, regular cross-linking will not be possible with hardening problems and foaming to occur. Technical properties might deviate. Do not work in direct sunlight or on strongly heated surfaces, as the processing time is greatly reduced and bubble formation is possible.

Special remarks: it is not recommend to thicken the **PU 414 FLAIR** by adding suspending agent, as the appearance of the coating will be negatively affected.

Coloured products should always belong to the same batch and be used on the same surface, as slight colour deviations in different batches cannot be excluded due to the raw material. The batch number is indicated on the container labels. For certain colour shades - especially pastel light shades - the recommended layer thicknesses must be observed to ensure opacity. Colour changes, loss of gloss or signs of yellowing may occur with certain light and weather influences and with prolonged and intensive use.

To prevent wear and tear, suitable chair castors or floor protection mats must be used with swivel chairs/office swivel chairs or other wheeled furniture.

Cleaning

To remove fresh contamination and to clean tools, use thinner **VR 28** or **VR 33** immediately. Hardened material can only be removed mechanically.

Separate cleaning and care recommendations are available for cleaning floors produced with KLB coatings and sealers.

Storage

Store in dry and if possible, at frost-free conditions. Ideal storage temperature is 10 - 20 °C / 50 - 68 °F. Bring to a suitable processing temperature before application. Tightly re-seal opened packages and use up the content as soon as possible.

Special remarks

The product is regulated by the German Ordinance on Hazardous Substances (GefStoffV), the German Ordinance on Industrial Safety and Health (BetrSichV), and transport regulations for hazardous goods. The necessary information is contained in the DIN Safety Data Sheet. Observe all identification information on the container label!

GISCODE: PU10

Indication of VOC-content:
(EG-Regulation 2004/42) Maximum Permissible Value 500 g/l (2010,II,j/lb): Ready-for-use product contains < 500 g/l VOC.

CE marking

CE

KLB Kötztal Lacke + Beschichtungen GmbH
Günztalstraße 25
89335 Ichenhausen, GERMANY

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PU414Flair-V1-082024	
DIN EN 13813:2003-01	
Synthetic resin screed mortar DIN EN 13813: SR-B2,0-AR0,5-IR20	
Fire behaviour	E_{fl}-s1
Emission of corrosive substances	SR
Wear resistance BCA	AR 0,5
Adhesive tensile strength	B 2,0
Impact resistance	IR 20

VOC content

The product complies with the high requirements to low VOC contents, as required for sustainable construction. Therefore, these values exceed by far the European Union directive 2004/42/EG (decopaint directive).

	Limit value	Actual content	
Decopaint Directive 2004/42/EG - Component A	< 500	2,5	g/l
Decopaint Directive 2004/42/EG - Component B	< 500	0	g/l
DGNB - Components A + B	< 0,5	0,13	%
Klima:aktiv - Components A + B	< 3	0,13	%
LEED - Components A + B	<100	1,8	g/l
Minergie ECO ® - Components A + B	<1(<2)	0,13	%

(According to the Decopaint directive, single components are used for calculation. In the sustainable building rating systems, the mixture of both components in the correct mixing ratio is the determining factor.)

Please consider the latest version of this product information on our website.

KLB KÖTZTAL Lacke+Beschichtungen GmbH
Günztalstraße 25
89335 Ichenhausen, GERMANY
Phone +49 (0) 8223-96 92-0
Fax +49 (0) 8223-96 92-100
www.klb-koetztal.com
info@klb-koetztal.com

Colour chart

KLB KÖTZTAL

KLB-SYSTEM POLYURETHAN PU 414 FLAIR

Low-emission and decorative coatings in a unique look for creative floor designs

Rechtliche Hinweise

Legal Advice I Renseignements légaux

DE - Die aufgeführten Muster zeigen den typischen Farbausfall. Abweichungen sind chargenbedingt möglich. Um Farbabweichungen in einer Fläche zu vermeiden, sind diese immer in einer Charge auszuführen. Die vorliegenden Abbildungen können durch die Druckverfahren verfälscht sein. Im Zweifelsfall Originalmuster anfordern. Alle angegebenen und hergestellten Farbtöne sind ca. Farbtöne, die nicht immer den exakten RAL-Standardtönen entsprechen. Lieferungen können von Charge zu Charge geringfügig abweichen, was keinen Mangel darstellt. Machbarkeit und Lieferzeiten bei Sonderfarben sind abhängig von Produkt und Farbton.

Auch können Farbtöne verschiedener Produkttypen voneinander abweichen. Dies ist bei der Ausführung der Arbeiten, bei denen auf eine einheitliche farbliche Gestaltung Wert gelegt wird, besonders zu berücksichtigen, indem abgrenzbare Arbeitsabschnitte mit demselben Produktionsansatz (siehe Chargen-Nummer auf dem Etikett) und mit den gleichen Produkttypen ausgeführt werden. Wird bei Nachlieferungen für das gleiche Objekt auf hohe Farbgleichheit Wert gelegt, muss bei einer Folgebestellung, neben der Farbbezeichnung auch die Chargennummer des vorausgegangenen Auftrages angegeben werden.

Nach dem Stand der Technik können Kunststoffe Veränderungen durch Witterungseinflüsse und UV-Strahlen erfahren. Hierzu zählen Vergilben, Glanzverlust, Weißanlaufen oder Kreiden. Diese Veränderungen können je nach Produkt und Farbton unterschiedlich stark sichtbar werden. Die Funktionsfähigkeit der Bodenbeschichtung wird dadurch nicht beeinträchtigt.

Für Flächen die sich nur gering verändern sollen und für Anwendungen im Außenbereich empfehlen wir UV-beständige Versiegelungen, oder vollflächig mineralische Abstreuungen einzusetzen.

Unsere Angaben beruhen auf unseren bisherigen Erfahrungen und Ausarbeitungen. Wir übernehmen Gewähr für die einwandfreie Qualität unserer Produkte, die Verantwortung für das Gelingen der von Ihnen durchgeführten Arbeiten können wir nicht übernehmen, da wir keinen Einfluss auf die Verarbeitung und Verarbeitungsbedingungen haben. Es wird empfohlen, im Einzelfall Versuchsflächen anzulegen. Darüber hinaus gelten unsere „Allgemeinen Geschäftsbedingungen".

GB - The samples shown in this colour chart represent typical colour appearance. Colour deviations are possible depending on the batch. Please use one batch for bigger areas if possible. These illustrations may be distorted by the printing process. In case of doubt, please request original samples. All stated and produced colour tones are approximate quotations and may not always correspond to specific RAL standard colours. Different batches may show minor deviations, which doesn't constitute any deficit. Producibility and delivery time depends on the product and colour.

Colours in different kinds of product may vary as well. This is especially important for an even coloured design. Work on separated overlapping sections should be carried out with the same kind of product in the same batch (labelled container). For subsequent deliveries or the same object please state the colour and batch number from the previous order.

Changes in synthetic material may occur due to weathering and especially UV-rays. Yellowing, blooming, loss of gloss or dusting may occur depending on the used product and colour. Intensity of deviations depends on product and colour tone. Functionality of the coated floor is not being affected.

For areas where minor deviation is important and for usage for exterior areas we recommend color-resistant sealing or complete mineral scattering. Our general information is based upon our experience and technical preparation. We guarantee the correct and proper quality of our products. We do not assume responsability for the work not carried out by us, since we have no influence on the processing or processing conditions. We recommend trials to be conducted. Besides our „General terms and conditions" apply.

FR - Les échantillons listés présentent la palette de couleurs typique. Des écarts sont possibles en raison des conditions des lots. Afin d'éviter les écarts de couleur sur une surface, il est recommandé de toujours utiliser le matériel d'un seul lot. Les présentes illustrations peuvent être falsifiées pendant le procédé d'impression. En cas de doute, veuillez demander des échantillons originaux. Toutes teintes indiquées précédemment sont approximatives, soit elles ne correspondent pas toujours exactement aux coloris RAL. Les produits livrés peuvent varier légèrement de lot à lot, ce qui ne représentera pas une cause de réclamation. La faisabilité et les délais de livraison des produits en coloris spéciaux dépendent du produit et du coloris même.

Aussi les teintes de types de produit différents peuvent diverger l'une de l'autre. Ceci est particulièrement important à considérer en cas de travaux dans lesquels obtenir une teinte unitaire est significatif, étant que des zones de travail délimitables sont travaillées avec le même lot (voir numéro de lot sur l'étiquette) et avec le même type de produit. A l'occasion de livraisons supplémentaires, dans le cas où sur la même surface il était très important de respecter l'utilisation de la même couleur, il sera nécessaire de préciser en phase de commande, au-delà du nom de la couleur, aussi le numéro de lot de la commande précédente.

Selon l'état de la technique les matières plastiques peuvent subir des altérations du fait de l'influence des conditions météorologiques et des rayons UV. Parmi ces altérations il y a: jaunissement, perte de brillance, formation de taches blanches ou farinage. Ces altérations peuvent être plus ou moins fortement visibles en fonction du produit et de la teinte. La fiabilité du revêtement de sol n'en ne sera toutefois perturbée.

Pour des surfaces pas susceptibles de s'altérer et pour les zones extérieures nous recommandons d'appliquer des finitions stables aux rayons UV ou de saupoudrer à refus avec des sables minéraux.

Les indications de cette fiche reposent sur les résultats des expériences et essais réalisés à ce jour. Nous garantissons la qualité de nos produits, mais toutefois, nous ne pouvons garantir la réussite de vos travaux dans la mesure où nous n'avons aucune influence sur la mise en œuvre et les conditions d'applications. Nous recommandons de procéder à des essais préalables. Par ailleurs, nos «Conditions Générales de Vente» s'appliquent systématiquement.

KLB KÖTZTAL
Lacke + Beschichtungen GmbH

Günztalstraße 25
89335 Ichenhausen
Germany

Phone +49 (0) 8223-9692-0
Telefax +49 (0) 8223-9692-100

www.klb-koetztal.com
info@klb-koetztal.com