

Inspired flooring since 1962

Jacobsen TimberTop Wood Flooring & NZ Building Code E3

E3 – Amendment 7 to Acceptable Solution E3/AS1 for Internal Moisture

Amendment 7 to the Acceptable Solution E3/AS1, for Clause E3 Internal Moisture of the New Zealand Building Code came into force on 3 November 2021, with the previous Amendment 6 expiring on this date. Amendment 7 was effective from 5 November 2020, however, was subject to a one-year transition period.

One of the main changes is that Amendment 7 now includes the reclassification of dishwashers and washing machines as Sanitary Appliances and basins and sinks as Sanitary Fixtures. There is a requirement for ensuring flooring solutions which must now have a finish that is both impervious and easily cleaned and, in open spaces, this surface must extend at least 1.5 metres from all sanitary fixtures and appliances. Timber or timber-based products can no longer be used as linings and finishes to floors in wet areas.

Independently Tested – Jacobsen TimberTop Wood Flooring is an E3 Alternative Solution

Independently tested in New Zealand by SGS Industrial Certification Services, a 48-hour water spill test showed that there was no noticeable change to the Jacobsen TimberTop Wood Flooring and that there was no water penetration through to the flooring substrate when installed using the following method:

- Substrate Flooring Membrane: Substrate protected by Uzin PE460 2-Component Epoxy Blocking Primer to act as a barrier against moisture penetration
- Aliphatic D3 water resistant PVA adhesive applied into all joints
- Planks adhered to the substrate using Uzin MK95 1-Component PUR Wood Flooring Adhesive

Installation and Maintenance

Installation and maintenance are to be carried out following the TimberTop Installation Guide attached. An amendment regarding E3 Alternative Solutions has been added to the installation instructions. Both the surface and the joints are impervious when installed in this manner.

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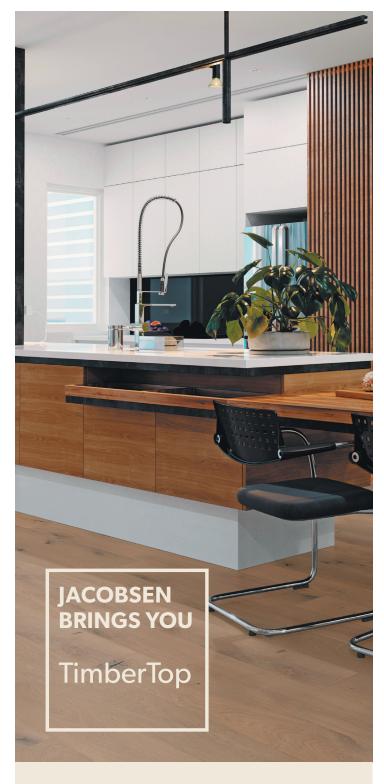
Inspired flooring since 1962

Jacobsen TimberTop floors are protected with seven layers of scratch resistant UV urethane which is easily maintained with a vacuum, damp mop and a pH neutral detergent.

The following documents are attached:

Jacobsen TimberTop Datasheet and 5G Installation, Jacobsen Wood Flooring Maintenance and Wood Flooring Warranty. Also, Datasheet for Uzin PE 460 Epoxy Primer and Uzin MK95 Wood Flooring Adhesive.

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Suitable for residential and commercial applications such as:

> Living rooms

>	W	or	kn	lace
		01	n p	acc

- > Retail
- > Aged Care
- > Entrance > Bedroom

Specifications

Range Name	TimberTop
Size (W*L*T)	190mm Board: 190 x 2130 x 14.2mm 240mm Board: 240 x 2130 x 14.2mm
Thickness	14.2mm
Lamella	3.2mm
Locking System	5G
Nesting	16% = 2 short planks
Bevel	Micro Bevel 4 Sided
VOC	Gold
Environmental	FSC® Certified
Finish	Bona Natural UV Lacquer
Treatment	Light Brushed
PCES per Carton	6
M ² per Carton	190mm Board: 2.42 240mm Board: 3.07

Composition



Top Coat

 Our finishes are protected with a premium top coat of 7 layers of scratch resistant UV urethane.

Hardwood Surface

- Sustainably sourced, stunning hardwoods.
- We only produce premium quality products, and unlike other flooring suppliers, we do not use veneers.
- Our beautiful hardwoods are available in surface thickness of 3.2mm.
- Our handcrafted surface treatments and textures combine artisanal detail with the latest technology to create a floor that is unique to your home.

Core Layer

 At the heart of every floor is our specially formulated Heavea hardwood which gives our flooring its core strength and stability.

Foundation Layer

 The final timber foundation gives additional stability and durability to the floor.

Disclaimer: The information given here is correct at the date of publication however due to Forestry Timber's commitment to ongoing product improvement, Forestry Timber reserves the right to modify this information without prior notice. Please note that Forestry Timber's instructions regarding installation, cleaning and maintenance must be observed. Please refer to Jacobsen.co.nz for guidance. Whilst we have made every effort to ensure the colours and wood characteristics displayed are as accurate as possible these images may vary from the actual product.

> Kitchen

> Rumpus

Jacobsen®

Grading



Rustic

Selected planks with less knots and swirls.

190mm Board



Mauritius - Lifestyle

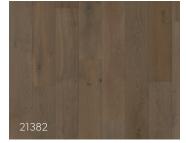


Mykonos - Lifestyle

240mm Board



Montserrat - Lifestyle



Smoked Neutrino - Lifestyle



Bahamas - Lifestyle



Coronet Peak - Rustic



Lifestyle

Planks which show more natural knots and swirls.



Grenada - Lifestyle



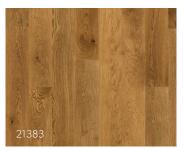
Banff - Rustic



Aspen - Lifestyle



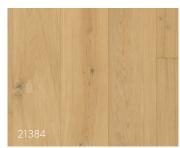
Cayman - Lifestyle



Tenerife - Rustic



Bequia - Lifestyle



Absolute - Rustic



Puerto Rico - Lifestyle

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TIMBERTOP

Installation requirements for 5G Engineered hardwood flooring

Our engineered hardwood floors are environmentally friendly. Our wood is responsibly sourced and certified. It may surprise you to know that we use timtber more efficiently, and with less impact on the environment than a traditional timber floor.

* **Please ensure packaging remains sealed until installation.** Engineered hardwood flooring should be the last work completed in any renovation or build.

All exterior walls, windows, and doors must be installed.

All wet work such as painting, drywall, masonry, and concrete must be completed and allowed ample time to dry.

***Do NOT start installing floor until other works are completed**, painting and tiling can affect moisture levels. Freshly plastered rooms will require a dehumidifier to draw excess moisture out prior to storing flooring in the room.

Pre-installation

Storage and care: The packs of engineered hardwood flooring must be stored indoors out of direct sunlight in a dry, cool environment at least 20cm/8" off the ground. Packs must be kept completely flat and well supported with an ambient room temperature of 18°–25°C /

Packs must be kept completely flat and well supported with an ambient room temperature of 18°–25°C / 64°-75°F.

Acclimatisation: the floorboards will need at least 48 hours to acclimatise to the temperature of the room where they will be installed. Do NOT open the packs until the day of installation to avoid moisture affecting the floorboards.

Subfloor preparation: Ensure the subfloor is dry, level and clean prior to installation.

Any uneven areas exceeding 3mm over 1m/3' in any direction needs to be levelled prior to installation. Self levelling compound can be used but must be allowed to completely dry-out prior to installing the flooring. The surface temperature of the subfloor, should be a least $15^{\circ}C/59^{\circ}F$ but does not exceed $27^{\circ}C/81^{\circ}F$. Check moisture levels prior to installing floor. Most new builds have high relative humidity. Ideal conditions are less than 35-55% relative humidity, but never below 30% or above 60%.

Ensure room temperature is a minimum of 15°C/59°F and maximum of 27°C/81°F.

Basements or crawl spaces must be dry and well ventilated.

Crawl spaces must be a minimum of 45cm/18" from the ground to the bottom of the joist. Dirt floors in crawl spaces should be covered with a 0.2mm/6-10mil black plastic lining to reduce moisture migration. Seams should overlap and sealed with waterproof tape.

Perimeter crawl space cross ventilation should equal 1.5% of total area, vents must remain open year-round.

Underlay: Age resistant polythene membrane plastic sheets (0.2mm thickness) are vapour barriers and are necessary for a floating floor installation, as well as sound insulation. Ensure vapour barrier has sufficient overlap of at least 20cm/8" and use a suitable vapour barrier adhesive tape to seal overlap.

Acoustic underlay such as a natural rubber underlay may also be used if noise from footsteps is an issue (sometimes in high rise buildings) but this should never exceed 4mm in thickness (foam or natural rubber) and should still be applied over a suitable vapour barrier.

TIMBERTOP

A moisture barrier is required on subfloors: Concrete ground-supported slab Subfloors located in areas of humidity i.e. above heating systems or laundry rooms Structural floors above ventilated crawl-spaces Lightweight subfloor structures of concrete Underfloor heating

Opening packs: Open 3 to 5 packs at a time, and loose lay the floorboards to ensure colour and wood characteristics are suitably mixed prior to fitting. Each floorboard should be carefully checked prior to installation. Never install a damaged or unsuitable floorboard. **Installation is considered acceptance of each floorboard**.

N.B. If floorboards are damaged, please notify your distributer immediately - claims must be raised prior to installation. All claims must be made in writing, and must include evidence of the purchase date, the identity of the original purchaser and the installation location. Without this information, no warranty coverage will apply.

Wood is a natural product with natural variations of colour, grains and characteristics these attributes are NOT defects.

Engineered Floor installation with underfloor heating

Prior to installation, ensure the underfloor heating system has been thoroughly tested. For new heating systems, they should be tested for 2 weeks prior to the floor installation, this allows for any excess moisture to evaporate before installation of engineered floor.

Engineered flooring can be used with underfloor heating only under specific and specialised conditions. Both electrical and Hydronic underfloor heating systems can be used. However, certain parameters must be established prior to installation and while running the heating system.

The floor heating system must be switched off 48 hours prior to installation and switched on one week after completion, with a gradual increase in temperature.

The heating system MUST have the heat evenly distributed throughout the whole floor. Spot heating, or specific area heating within a larger floor is not permitted. Excessive heat concentration in one area may cause deformation or movement in the engineered floor.

N.B Hydronic underfloor heating systems offer a more evenly distribution of heat whereas electrical systems can have "hot spots". The maximum surface temperature of an engineered floor with a Hydronic underfloor heating system is 29°C / 84°F.

The heating system must have sensors with memory capabilities, set in at least 2 locations. An in-floor direct contact temperature sensor and an outside temperature sensor.

Electric radiant heating system the surface temperature must NOT exceed 27°C / 81°F.

No heavy textile floor covering should be placed over the heated floor. If light carpets or rugs are used, the temperature under the textile floor covering must not exceed 81°F or 29°C / 84°F with a Hydronic underfloor heating system.

Caution:

Electric radiant heating system should not exceed 80 watts/m² or 3sq ft

The following wood species are NOT warrantied for use with underfloor heating - **Jatoba, Iroko,** and Australian timbers - **Jarrah, Sydney Bluegum, Blackbutt, and Spotted Gum**. Any claims arising from using these species on underfloor heating will NOT be honoured.



Planning installation

All engineered floors expand and contract with humidity. Expansions gaps are required on all sides of the room. **Failure to provide adequate expansion space in any single location can cause damage to the entire floor.**

Layout of Floorboards lay your floorboards lengthwise against the longest wall of the room, starting at the furthest corner from the entrance.

Measure and plan the floor prior to installation, calculate the first and last floorboard width.

Plan carefully to allow for expansion gaps of a minimum of 15mm / 5%"

To ensure a completely level floor throughout its lifetime, a minimum of 50cm/20" distance between one head joint and the head joint of the next row should be allocated when preparing the installation layout. Always randomly stagger end joints.

The width of the floorboard in the last row should not be less than 50mm/2". Ensure the first row is completely straight using a laser line as most walls rarely run straight

Expansion allowance of 2mm for every 1 metre/3' is required with a minimum of 15mm / ⁵/₈". The floor needs to be able to expand at all thresholds, pillars, door frames and transitions to other tiled or parquet surfaces. For all fixtures and fittings, ensure that they are fitted prior to installing the floor. We recommend movement joints around fixtures e.g. kitchen islands or wall partitions. Use spacing wedges during the installation to assist in maintaining consistent expansion gaps.

Larger rooms (e.g. halls, assembly rooms, dance floors) will require greater allowance for expansion, we recommend an expansion joint in the middle of the room. For floating installations, exceeding 9m/30' across the width of the floorboards or 15m/50' along the length of the floorboards, you will need an expansion joint midway through and cover with T-molding.

Installation of Floorboards with 5G profile locking system

The 5G system allows the parquet to be joined together without glue or being nailed down to the subfloor.

Moisture barrier and possibly Acoustic sound barrier (if needed) as detailed above

Underfloor heating, the vapour barrier is laid as close as possible to the engineered floor. There should be NO space between the vapour barrier and the flooring to prevent easy exchange of moisture.

Flooring must be installed as tightly as possible to the subfloor. There should be NO gaps or separation from the subfloor, air spaces may lead to the floor drying out (see note above re subfloor deviation/tolerance)

First floorboard, first row the groove side of the floorboard faces the wall.

Spacers are required between the wall and the first row to help achieve the required expansion gap. Use laser or string line level to check the wall for deviations and adjust/trim flooring as required to achieve a perfectly straight first row.

Floorboards are joined together with the 5G locking system which will engage with the short end of floorboard: Hold second floorboard against the first at approximately a 20°- 30° angle

Once in place, tap firmly down until an audible click is heard and the floorboard is flat. This will ensure the floorboards are locked together.



Installation of floorboards with 5G profile locking system - continued

A **wooden tapping block** must be used against the tongue side to knock the floorboards together, do not use force to join the boards or hit directly with a hammer. Joining by hand without the use of a tapping block may seem to work but the profile will not engage properly and may cause the floor to squeak at certain times of year when the humidity levels alter.

Allow a minimum distance of 50cm/20" between one head joint and the head joint of the next row .

After installation remove spacing-wedges and fill visible joints with a sealant or apply a profile above and secured only to the wall such as quarter round or skirting board. Never fix to the flooring, as the floor must be allowed to move under the profile when expanding or contracting.

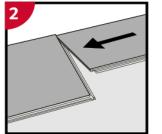
Skirting boards must be fixed directly to the wall, and NOT onto the floorboards. The skirting boards should not press down on the flooring as it may impede natural movement. (Climate variations are easily concealed with skirting boards).

Diagrams for 5G profile locking system installation



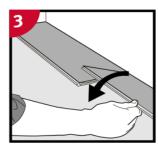
First floorboard, first row: Place a spacer of 15mm / ½" thickness to the left and position the floorboard against the wall.

After 3 rows, you can easily position the flooring against the front wall with distances 15mm / ³/₂"



Second floorboard, first row:

Place this floorboard gently and tight to the short end of the first one.



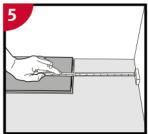
Fold the floorboard down in a single action movement. During the fold down, make sure the floorboards are tight against each other. Afterwards press down or slightly tap down at the short end till it clicks. No major force is required.



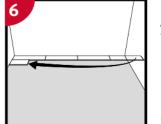
Press slightly along the short end just installed.



Diagrams for 5G profile locking system installation

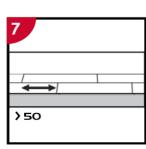


At the end of the first row, place a spacer of 15mm / 5½" to the wall and measure the length of the last floorboard to fit.



Starting the Second row

First floorboard should be a minimum length of 50cm/20". Place a 15mm / ¾" spacer against the wall and measure the last piece. If it is shorter than 50cm/20" a new starter piece should be used. Insert the floorboard at an angle into the previous row and tap (on the long side) it in using a tapping block till flat.



Distances between short ends. Minimum distance between short ends of floorboard in parallel rows shall not be less than 50cm / 20". This is for stability of the floor.



Second floorboard, second row:

Place the floorboard at an angle into the groove of the previous row making sure that the end of the floorboard is tight / flush to the short end of the previous floorboard.

Last row land perhaps also first row]

The Minimum width of the last floorboard should be NOT LESS than 50mm / 2". Remember distance to wall is 15mm / 5/8".

Tips! Put a spacer before measuring. Cut the floorboard lengthwise and glue the short ends. See instructions above.

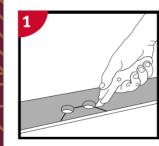
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After 2-3 rows:

Adjust the distance to the front wall by placing spacers 15mm / 5/s". Once the adjustment is done against the main wall, continue to install until the last row.



Installation around radiators or heating pipes





Drill holes 18mm/ 3/4" larger than the diameter of the pipes. Cut out the floorboard (with the thinnest blade possible). Install the floorboard, glue the cut out piece back in place.

December 2020

TIMBERTOP

When angling is not possible - small angle widths

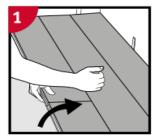




Cut the tongue at the same time you cut the length of the floorboard and install as shown above. Please note that the smallest width of a floorboard is 50mm/2" in the last row. If it is not, the first row width must be adjusted. This can easily be calculated when measuring the room width before installation.

Cut off the locking element with a chisel, push the floorboards horizontally together. If necessary, place some spacers between the last floorboard and the wall to keep the floorboards together during the curing time of the glue.

Dismantling panels





Your floor can very easily be dismantled, which enables replacement during and after installation. Separate the whole row by carefully lifting and slightly knocking just above the joint. Fold up and release the long side. Disassemble the floorboards by sliding horizontally. (Do not fold up, as this will damage the profile)

Post installation

Should further works continue, a moisture impermeable cover is recommended to protect the floor such as polythene sheeting (do not use waxed products).

Direct sunlight can alter the colour of the wood floor and care should be taken to cover the entire floor.

Ensure the room is adequately ventilated to maintain an **ideal humidity which should be between 35% to 55% but never below 30% or exceed 60%.** Humidity levels below 30% or above 60% may cause movement in the floor, gapping between floorboards, cupping or cracking. Use of a humidifier or dehumidifier may be required to maintain constant humidity levels, particularly over radiant heat.

If dust is present, vacuum immediately, do not mop. Moisture can set plaster dust into the low grain of the wood making it very difficult to remove.

The floor needs to acclimatise for one week prior to switching on the underfloor heating or air conditioner, with a gradual increase or decrease in temperature.

To assist in maintaining even heating throughout the room, draught proofing around windows and entrances is recommended.

Floorboards which crack or cup due to excessive or rapid heating, or failure to maintain the recommended humidity levels will NOT be covered by warranty.



Care and maintenance

Your premium quality flooring has been coated with a **formaldehyde-free**, **UV lacquered or UV Oiled finish**, which is ready for installation and does not require any special treatment directly after installation. However, you should be aware that engineered hardwood flooring will naturally get worn; therefore some regular maintenance is recommended to protect and to preserve your floor's beautiful surface:

Please ensure that a healthy **room climate with 35%-55%** air humidity and 20°-25°C/68°-77°F in temperature. These attributes in a climate is good for both your health as well as for the well being of the engineered hardwood flooring.

Ensure that any **moisture spillage is immediately cleaned** and dried up. Do not allow any moisture to pool on the surface, as this will cause damage to the floor.

Regular cleaning should be done with a gentle vacuum cleaner (with felt pads fitted to avoid scratching as well as NO rotating brushes), a static mop or a smooth floor-broom. Any sand or dirt should be immediately removed because they may scratch and damage the floor surface.

Any **Cleaning** should be done using only well wrung mop. Never use a wet cloth. When mopping with a damp mop, ensure that the residual water evaporates within one minute. If it takes longer, then there is too much moisture on the mop.

If required, the floor surface can also be cleaned with a damp mop or a special liquid soap to remove stains, grease, shoe tracks etc. Never use traditional wax or steel-wool on your lacquer-finished engineered hardwood floor.

TIP: Always test a small hidden area when using a new cleaning product prior to committing to the whole floor

Wood is also affected by UV light and will change colour when exposed for long durations. Floor coverings such as rugs and mats should not be placed immediately after laying. **The floor should be allowed to stabilise for a few weeks.**

It is highly recommended that you place felt pieces under any furniture bases or chair legs etc. to protect the floor surface. For high traffic entrance areas of halls or corridors a good floor mat is also recommended and will help preserve your floor.

Additional lacquering is not recommended.

In case of any damage to the lacquer-surface (e.g. by furniture movement), seek the advice and assistance of a qualified installer or tradesman who is knowledgeable about engineered hardwood flooring.

If the installed floor is UV Oiled finished, we recommend that the floor is recoated with an oil refresher product (e.g. Bona) every 3-6 months depending on the condition of the floor. Please follow the product manufacturers instructions prior to applying to the floor. Testing should be done on a hidden area first (for example in walk-in wardrobe or cabinet) to ensure suitability and adhesion of the product. TIP: Always test a small hidden area when using a new refinishing product prior to committing to the whole floor.

Wood is a natural material, which swells when moisture or humidity levels rise and shrinks when moisture or humidity levels fall. These not only show that your floor is a natural product but can also lead to some irreversible deformation of the floor if the room climate and humidity is left too high or too low for an extended period of time. This can particularly happen if, for example during winter, the relative humidity in a heated room falls below the specified 35%. In this case you should install an air humidifier in order to prevent damage to your floor. The same may also be necessary with an air conditioned room.



APPENDIX – Types of Subfloors

Plywood and composite subfloors

Use a moisture metre to check the moisture content, of a specific wood types. Moisture readings should not exceed 10%.

CDX plywood should be at least 15mm/ ⁵/₄" thick for joist spacing up to 40cm/16" on center, minimum 18mm/ ³/₄" thick for joist spacing greater than 40cm/16" on center (50cm/19" maximum). Oriented Strand Board - OSB at least 18mm/ ³/₄" thick, PS 2-92 rated or PS 1-95 rated.

Grade particleboard with a minimum density of 18kg/40lbs can be used for Floating Floors.

Concrete subfloors

Must be fully cured, poured at least 2 months prior to installation, and should have minimum 0.2mm/6-10 mil poly-film between the concrete and ground.

Lightweight concrete can hold more moisture and may take longer to dry out to an acceptable moisture content.

Wood, ceramic, vinyl or tile subfloors

Should be well installed. Failure of the subfloor is not warrantied. Wooden Subfloors should be fixed using screws every 150mm/6" - replace subfloor panels/floorboards as necessary to eliminate movement and squeaking.

Ceramic tile must be well-adhered with a tolerance less than 5mm/ $\frac{3}{6}$ over 3m²/10sq ft. Vinyl and tile must be non-urethane-coated, and well-adhered to the subfloor.

Special Note - E3 – Amendment 7 to Acceptable Solution E3/AS1 for Internal Moisture

Protecting Joints Within 1.5m of Sanitary Appliances or Fixtures

As outlined in E3 /AS1, and the need to create an impervious floor surface within 1.5metres of a sanitary appliance or fixtures, to prevent water splash from penetrating behind linings or into concealed spaces, we recommend the following additional steps to our standard glue down flooring installation instructions:

• Concrete substrate is to be protected by Uzin PE460 Epoxy Primer to act as a barrier against moisture penetration.

• Aliphatic D3 water resistant PVA adhesive is to be applied into to the tongue & groove profile of the 5G locking system to seal the joint. Care needs to be taken to ensure the correct amount of adhesive is applied to achieve a watertight seal but shouldn't be visible on the surface of the floor.

Planks are then adhered to the substrate using Uzin MK95 Wood Adhesive.

• A waterproof, flexible sealant should be applied around the perimeter where the floor meets the cabinetry or skirting. This can be colour matched to the cabinetry to disguise it.

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Talk to one of our experts, or visit our website:0800 800 460 | customer.services@jacobsen.co.nz | jacobsen.co.nz

December 2021

CLEANING AND MAINTENANCE PROGRAMME



Wood Flooring

After Initial Installation

The floor should not be walked on, cleaned or treated with any cleaning products, or covered with mats until at least 24 hours after installation.

Preventative Care

The use of doormats at all entrance points is highly recommended to reduce the amount of grit and abrasive particles from shoes.

All timber will fade when directly exposed to sunlight and ultraviolet rays. The use of drapes or other systems to protect the floor from excessive sunlight is essential.

The floor also needs to be protected from excessive heat, as well as extreme swings in temperature and humidity.

The use of wide-based plastic furniture protectors is also highly recommended to prevent scratching and indentation from furniture legs. Never drag the furniture.

It is good practice to regularly move the furniture and rugs around so that all parts of the floor are equally exposed to sunlight to maintain the uniformity of the floor.

Never use a mat with a latex or rubber backing because these will stain the floor.

Regular cleaning and the timely removal of abrasive dirt and stains greatly reduces the amount of cleaning required and prolongs the appearance and life of your wood floor.

Brushed Finish: This finish doesn't provide as thorough lacquer coverage as a smooth finish. On the tops of the exposed grains the lacquer coverage can be relatively thin, giving less protection against scratching, denting and water absorption. For this reason it is very important that you wipe up all spills immediately, especially from inside the grain grooves and try to ensure that damp items (such as towels) are not left in contact with the floor for extended periods of time.

Cleaning Recommendations

Dry sweep or vacuum the floor weekly or more often, depending on the amount of dirt and foot traffic.

The floor may be damp mopped if required. Use a clean mop, warm water and a pH neutral detergent. Ring out the mop as dry as possible. Disperse the dampness evenly and let the floor dry naturally for half an hour.

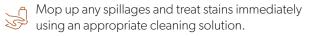
For brushed floors, spot cleaning is recommended instead of damp mopping for stubborn or ingrained dirt. This can be done either with a damp (not wet) sponge, or for larger areas, with a spray bottle of water and a pH neutral detergent spread with a dry mop.

Never wet mop the floor or allow pools of water to sit for any length of time. Do not allow water to stand on the joints for long periods of time either. Do not steam clean or steam mop your floor.



Avoid using waxes and polishes which leave residues attracting more dirt.

Remove Using



Stain Type

Fruit, berries, fruit drink, soft drink, coffee, tea, milk, wine, beer	pH Neutral Detergent
Chocolate, fat, grease, oil, shoe polish, scuff marks, tar, asphalt	White Spirits
Inks, dyes, lipstick	Methylated spirits
Urine	pH Neutral Detergent
Blood	Cold water



Applies to engineered timber and subsequent coating supplied by Jacobsen

Conditions of Warranty

- Valid to the original purchaser only
- Valid from date of purchase
- Not transferrable

Limited Structural Warranty

- 25-year limited structural warranty for residential installations
- 5-year limited structural warranty for commercial installations

Jacobsen warrant that your engineered timber floor will be free from structural defects for 25 years (residential) or 5 years (commercial), providing installation instructions are followed and when used under normal residential or commercial conditions, and with proper maintenance, our engineered wood flooring will be free from structural defects such as delamination, twisting and deformation.

This warranty is subject to the installation being completed correctly and in accordance with the installation and care and maintenance guidelines.

Wood is a natural product and will vary in grain pattern and colour across the board's, timber floors will also experience some colour change, due to light and UV exposure. This is expected and not covered under warranty.

Timber floors can expand and shrink due to changes in climate conditions, especially with extreme heat, cold or humidity. The engineered construction minimizes this movement, however, cannot always eliminate it. This is not a product fault but caused by environmental conditions.

Limited Coating Warranty

25-year limited coating warranty for commercial and residential installations.

Jacobsen warrant that the coating on your engineered timber is applied as per manufacturers recommendations. The coating will not de-bond between coats and is well adhered to the timber surface. Jacobsen will not cover coating issues where the correct care and maintenance has not been adhered to. Gloss reduction and scratches are considered normal wear and are therefore not covered by this warranty



Applies to engineered timber and subsequent coating supplied by Jacobsen

Warranty Conditions

Installation

The Jacobsen Engineered Wood Flooring ranges are suitable for indoor use only, residential and commercial settings with light to medium traffic conditions. Our flooring must be installed in strict accordance with the provided written installation instructions. Improper installation shall void all warranties. It is the sole responsibility of the installer not to install any material thought to be defective. No claim shall be entertained for any installed material which had visible defects or damage prior to installation. We will not be responsible for damages due to poor installation, transportation, or storage. All products must be stored indoors at room temperature and be protected from the elements.

Wet Areas

Jacobsen Engineered Wood Flooring ranges are not to be installed in bathrooms, saunas, laundries, or any other area in which high levels of steam and/or moisture is present.

Underfloor Heating

When installing Jacobsen Engineered Wood Flooring over underfloor heating all the conditions stipulated below must be observed and implemented. Failure to follow these requirements will void any warranty claims.

Both electrical and hydronic underfloor heating systems can be used. However, certain parameters must be established prior to installation and when running the underfloor heating system.

Specific requirements:

- The underfloor heating system must have its pre-establishing set-up done 14 days prior to installing the floor. This allows for any excess moisture to evaporate before engineered floor installation. Please read and strictly follow the instructions of the heating manufacturer in conjunction with our engineered flooring installation instructions.
- The underfloor heating system must be switched off 48 hours prior to floor installation and switched on one week after completion, with a gradual increase in temperature.
- The underfloor heating system MUST have the heat distributed evenly throughout the whole floor. Spot heating, or specific area heating within a larger floor is not permitted. Excessive heat concentration in one area may cause deformation or movement in the engineered floor.
- The underfloor heating temperature must be lower than 27°C. Additionally, the surface temperature of the engineered floor must not exceed 27°C. The heating system must be able to accurately control the surface temperature.
- No heavy textile floor covering should be placed over the heated floor. If light carpets or rugs are used, the temperature under the textile floor covering must not exceed 27°C.
- When using underfloor heating a vapour barrier must be installed between the engineered floor and the underlying floor containing the heating. To prevent easy exchange of moisture there should not be any space between the vapour barrier and the engineered floor.



Applies to engineered timber and subsequent coating supplied by Jacobsen

- The engineered flooring must be installed as tightly as possible to the substrate. Any gaps or separation from the substrate resulting in air spaces, may lead to drying out of the timber.
- To assist in maintaining even heating throughout the room draught proofing around windows and entrances is recommended.

Maintenance

Jacobsen engineered wood flooring ranges should be maintained in strict accordance with our written maintenance instructions. Use of cleaning agents such as oils, ammonia-based cleaning liquids, steam mops, etc, will void your warranty.

Limited Warranty

The structural and coating warranties above are limited to the original purchaser and the original installation location. This warranty cannot be assigned or transferred to a new owner or new location.

Colour Variation

Timber is a natural product hence colour variation will occur. Samples, images, and written descriptions are indicative only and may not match the installed floor. Other variations will also occur such as knots, filler, grain variations, gum/sap marks, and mineral marks. All variations are normal and not considered defects, and therefore, do not form part of these warranties.

Abuse or Misuse

This warranty does not cover indentations, scratches, or damage caused by negligence.

Water Damage

Damage caused by moisture or water is not covered by this warranty. This includes but is not limited to – moisture penetration through the subfloor, floods, leaks, hydrostatic pressure, mould, and damage due to evaporative cooling.

Alterations or Repairs

Alterations to the flooring will void this warranty. No warranty is provided to cover repairs. Resurfacing, repairs, or replacements shall not extend the warranty period.

Claims

Any claims under this warranty must be made in writing within the guaranteed period and must be accompanied by proof of purchase and evidence of the effect. Such claims will be paid on a pro rata basis considering the number of years of satisfactory product performance.

If your floor is subject to a claim and this claim is approved, Jacobsen will supply free of charge the following percentages (in quantity) below of the same or comparable product to replace the affected area. You will be responsible for paying for the balance of the flooring and installation costs. Jacobsen is not obligated to provide for, or to incur the cost of, repairing, resurfacing, refinishing, reinstalling the defective flooring, the replacement/repair of any surrounding flooring. An obligation to replace or repair does not extend to any sub flooring material, adhesives, or other items consumed during removal, installation, or refinishing.



Applies to engineered timber and subsequent coating supplied by Jacobsen

25 Year Structural Warranty - Residential

Year which claim is made, calculated from the date of purchase	Percentage
Year 1 - 4	100%
Year 5 - 8	70%
Year 9 - 12	40%
Year 13 - 16	30%
Year 17 - 20	20%
Over 20 years	10%

5 Year Structural Warranty - Commercial

Year which claim is made, calculated from the date of purchase	Percentage
Year 1	100%
Year 2	80%
Year 3	40%
Year 4	20%
Year 5	10%

5 Year Coating Warranty

Year which claim is made, calculated from the date of purchase	Percentage
Year 1	100%
Year 2	70%
Year 3	50%
Year 4	30%
Year 5	10%





1-Component PUR Wood Flooring Adhesive

UZIN MK 95

Hard-elastic adhesive for large-size tongue and groove wood flooring

MAIN APPLICATION FIELD:

- solid wood flooring
- strip parquet

SUITABLE ON / FOR:

- calcium sulphate or cementitious screeds, concrete
- new P4 P7 or OSB 2 OSB 4 boards, screwed
- precast screeds, screed boards
- smoothing compounds suitable for wood flooring
- UZIN insulating and installation underlays suitable for wood flooring
- warm water underfloor heating systems



PRODUCT BENEFITS/FEATURES:

UZIN MK 95 is a moisture-curing adhesive which produces a good ridge formation. Due to its technical properties it is ideal for installation of large-size wood flooring. The slight foaming and the rapid setting characteristics lead to perfect installation results. For interior use.

- very good ridge formation
- slightly foaming
- hard elastic adhesive according to ISO 17 178
- adhesive residues on wood flooring can be removed



EC1 Werthso

TECHNICAL DATA:

Packaging	metal bucket
Pack Size	16 kg
Shelf Life	min. 9 months
Colour	beige
Consumption	1000 - 1200 g/m²
Working Time	approx. 30 minutes*
Minimum Application Temperature	15 °C at ground level
Loadable	after approx. 12 hours*
Grindable	after approx. 24 hours*
*At 20 °C and 65% relative humidity	1

*At 20 °C and 65% relative humidity

UZIN MK 95



SUBSTRATE PREPARATION:

The substrate must be sound, load-bearing, dry, free from cracks and free from materials (dirt, oil, grease) that would impair adhesion. Cement and calcium sulphate screeds must be abraded and vacuumed. Test the substrate in accordance with applicable standard or notices and report any deficiencies.

Any adhesion-reducing or unstable layers, e.g. release agents, loose adhesives, compounds, covering or paint residues, etc. must be removed, e.g. by brushing, abrading, grinding or shot-blasting. Thoroughly vacuum loose material and dust.

Priming is not necessary on standard, dry substrates suitable for wood flooring (cementitious or precast screeds). Calcium sulphate screeds, accelerated or rapid cementitious screeds, underfloor heating systems as well as special screed constructions have to be primed with UZIN PE 414 BiTurbo. Obtain application advice if in doubt.

The datasheets for other used products have to be observed.

APPLICATION:

- Before use, allow the adhesive to come to room temperature. Pull off the foil cover after opening and remove any surface skin if necessary. Do not mix the skin in.
- Apply an even coat of adhesive onto the substrate using a suitable notched trowel. Do not apply more adhesive than can be laid with good transfer onto the back of the wood flooring within the working time. Press down the wood flooring element well.
- Remove residues while fresh with wipes from the UZIN Clean-Box. Hardened adhesive can only be removed mechanically.

CONSUMPTION INFORMATION:

Parquet type	Toothing	Consumption approx.*
Strip, multi-ply wood flooring	B11	1000 - 1200 g/m²
Solid wood flooring	Solid board notched trowel / B13	1200 g/m²

*At 20 °C and 65% relative humidity, with tempered adhesive buckets.

IMPORTANT NOTES:

A shelf life of 9 months when stored in moderately cool conditions, in the original packaging. Frost-resistant down to -25 °C. Carefully and tightly reseal opened containers with the foil and use the contents quickly. Allow containers to come to room temperature before use.

- Best applied between 18 25 °C, with the floor temperature above 15 °C and relative air humidity below 65%. Low temperatures and low air humidity lengthen the working and drying time. Whilst high temperatures and high air humidity shorten the working and drying time.
- The substrate must be even when installing large-size elements. Observe the manufacturer specification if necessary.
- Minimum thickness of any levelling compound below the adhesive is 2 mm.
- Observe good drying of the levelling compound.
- The substructure of wooden floors must be dry. Adequate ventilation or rear-ventilation must be provided, e.g. by removing the existing expansion strip or by installing special skirtings with ventilation holes.
- Observe standard wood humidity.
- Alcohols like methanol, ethanol, spirit, spirit of wine etc. as well as alcoholic vapours may disturb or even prevent the curing of UZIN MK 95. Therefore alcoholcontaining products, e.g. cleaners or thinners, must be kept away from installations with UZIN MK 95.
- Observe adequate and uniform distance to rising components, depending on type of wood flooring and room size.
- Ready for grinding and surface treatment after 24 hours (suitable products on www.pallmann.net), with standard wood humidity, air humidiy and sufficient acclimatised wood flooring.
- Follow the generally acknowledged rules of the trade and technology for the installation of wood flooring in respective of the applicable national standards (e.g. EN, DIN, OE, SIA, etc.)

SEALS OF QUALITY & ECOLABELS:

- Solvent-free
- EMICODE EC 1 / Very low emission

COMPOSITION:

Moisture-curing, modified polyurethane prepolymers.

PROTECTION OF THE WORKPLACE AND THE ENVIRONMENT:

Solvent-free. Non flammable. Contains diphenylmethanediisocyanate (MDI). Harmful on inhalation. Irritating to eyes, respiratory system and skin. There is limited evidence of a carcinogenic effect for respirable vapours of MDI. Harmful: May cause damage to organs through prolonged or repeated exposure. May cause sensitisation by inhalation and skin contact. Provide good ventilation. Use barrier cream, protective gloves and safety-goggles. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Observe safety information on product label as well as safety data sheet. Once cured, has a neutral odour and presents no physiological or ecological risk.

The above information is based on our experience and careful investigations. The variety of associated materials and different constructions and working conditions cannot be individually checked or influenced by us. The quality of your work depends, therefore, on your own professional judgement and product usage. If in doubt, conduct a small test or obtain technical advice. Observe the installation recommendations of the floor covering manufacturer. The publication of this Product Data Sheet invalidates all previous product information. The respective updated version of this datasheet can be found on our Homepage under www.uzin.com | 07/2020

UZIN MK 95



DISPOSAL:

Where possible, collect product residues and re-use. Do not allow dispersal into drains, sewers or ground. Empty, scraped and drip-free containers are recyclable. Containers with liquid residue, as well as the liquid product, are classed as Special Waste. Dried product residues are classed as Construction Waste. Therefore collect waste material and allow to harden, then dispose as Construction Waste.

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2-Component Epoxy Blocking Primer

UZIN PE 460

Epoxy primer for damp or weak substrates

MAIN APPLICATION FIELD:

- barrier primer on unheated cementitious screeds up to 5 CM-% or on concrete up to 98% RH
- barrier primer on heated constructions up to 3 CM-%
- hardener for weak, porous or cracked substrates
- bonding primer prior to installation with UZIN levelling compounds

SUITABLE ON / FOR:

- dense or absorbent existing substrates
- cement or gypsum screeds, magnesia or xylolite screeds, concrete, P4 - P7 and OSB 2 - OSB 4 boards or precast screeds
- ceramic or natural stone floors, terrazzo, metal (contact UZIN Technical Service for advise), matt-sanded coatings and sealants
- gritbinded or in connection with UZIN PE 280 prior to installation with UZIN cement or calcium sulphate levelling compounds
- exposure to castor wheels in accordance with DIN EN 12 529
- suitable for residential, commercial and industrial areas



PRODUCT BENEFITS/FEATURES:

UZIN PE 460 is an epoxy primer with low odour, mainly used as moisture barrier up to 5 CM-% or 98% R.H. on cements screeds or concrete. When using UZIN PE 460 as a mortar or levelling compound in combination with UZIN sands, it dries quickly and is highly resilient. For interior and exterior use.

- reduced odour during application
- high barrier effect against moisture
- very good surface penetration
- resistant against water, frost and chemicals
- system component in PAH renovation





TECHNICAL DATA:

Packaging	metal combi can
Sizes	10 kg, 5 kg, 0.75 kg
Shelf Life	min. 12 months
Mixing Ratio	A:B = 1.9:1 parts per weight
Colour, wet	transparent
Colour, dry	brownish
Consumption	200 - 600 g/m² per layer*
Working Time	25 - 30 minutes*
Drying Time	see application charts
Minimum Application Temperature	10 °C at ground level and +3 °C above dew point
Final Strength	after 3 - 5 days*
*At 20 °C and 65% relative humidity. See "A	pplication Chart"

*At 20 °C and 65% relative humidity. See "Application Chart".

UZIN PE 460



SUBSTRATE PREPARATION:

The substrate must be sound, load-bearing, dry, free from cracks and free from materials (dirt, oil, grease) that would impair adhesion. Test the substrate in accordance with applicable standard or notices and report any deficiencies. Any adhesion-reducing or unstable layers, e.g. release agents, loose adhesives, compounds, covering or paint residues, etc. must be removed, e.g. by brushing, abrading, grinding or shot-blasting. Dense, smooth and metal surfaces should be degreased and abraded. On metal, pretest for adhesion strength. Allow the primer to dry completely.

The datasheets for other used products have to be observed.

APPLICATION:

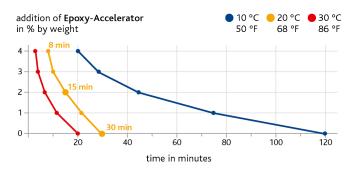
- Before use, allow the combi-cans to come to room temperature. Punch several times through the plastic plug and the floor of the upper container (hardener B). Allow the hardener to drain completely into the lower container (resin A). Remove the empty upper container and thoroughly blend the components with a spiral mixer (A). Decant the mixed material into an oval bucket and mix once again.
- Immediately apply an even coat of the primer onto the substrate with the UZIN Nylon Fibre Roller (B). On smooth surfaces, it can be spread with a B2 notched trowel and then evenly rolled out. Ensure a fully sealed coat. Pay attention to the limited working time.
- When the coat is dry to accept foot traffic, but within 48 hours, apply the second coat crosswise. For a visual differentiation between the coats, mix approx. 1% of UZIN Epoxy Colourant into the material for the second coat (C).
- With subsequent application of levelling compounds, the last wet coat has to be gritbinded immediately with UZIN Quartz Sand 0.8 (approx. 3 kg/m²). After curing vacuum thoroughly.
- In case of using UZIN PE 460 as a moisture barrier and using UZIN PE 280 as a bonding primer on top, the minimum quantity of UZIN PE 460 has to be 500 g/m² in one layer.
- Clean tools immediately after use considering the recommended safety measures. Hardened material can only be removed mechanically. When applying the material always wear the recommended safety equipment.



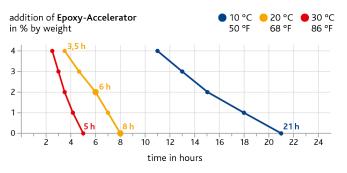
To accelerate the setting proces, up to max. 4% of UZIN Epoxy Accelerator can be added to the primer. The application of the following coat can therefore be carried out earlier, ideally at the same day.

The working and setting time when using the accelerator are shown in the following diagrams:

Working Time







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UZIN PE 460



An addition of 2% allows a 2-coat application within one day.

Caution: The working time with 4% of the accelerator is dramatically reduced. Only use this quantity with adequate experience and lower temperatures!

APPLICATION CHART:

Foundation / Application	Consumption	Drying Time
Rough, shotblasted or milled substrates	300 - 600 g/m²	5 - 21 hours*
Slightly shotblasted substrates, application with B2 notched trowel	approx. 500 g/m²	
Sanded substrates, old adhesive residues	250 - 350 g/m²	
Smooth, dense, non absorbent substrates	200 - 250 g/m²	
Barrier on new, trowelled, smoothed cementitious screed	1st coat: approx. 350 g/m² approx. 250 g/m²	

*At 20 °C and 65% relative humidity, with tempered containers. Material consumption is increased at lower temperatures and depends on the roughness of the substrate.

- Before use, allow the combi-cans to come to room temperature. Punch several times through the plastic plug and the floor of the upper container (hardener B). Allow the hardener to drain completely into the lower container (resin A). Remove the empty upper container and thoroughly blend the components with a spiral mixer (A). Decant the mixed material into an oval bucket and mix once again.
- 2. When using as a primer, apply the mixed material immediately and even onto the substrate by using the UZIN Nylon Fibre Roller.
- To create levelling compounds, screeds or repair mortars pour the appropriate UZIN special filler or qartz sand into the mixed material and mix for at least 2 minutes with a spiral mixer.
- 4. Apply the homogeneous material immediately onto the substrate, then trowel and smooth.
- Clean tools immediately after use considering the recommended safety measures. Hardened material can only be removed mechanically. When applying the material always wear the recommended safety equipment.

APPLICATION CHART:

Application	Consumption	Drying Time
Primer: Mixed resin without fillers	200 - 400 g/m² per coat	
Levelling compound: e.g. with quartz sand 0.8 or quartz powder mix	with mixing ratio 1:1.5: approx. 10 kg UZIN PE 460 + 15 kg quartz sand 0.8 / quartz powder mix -> approx. 14 litres of self levelling compound or: each mm/m ² : 0.72 kg UZIN PE 460 + 1.1 kg quartz sand 0.8 / quartz powder mix	Read for foot traffic: after 12 - 24 hours* Durable for water and chemicals:
Screed / Mortar: e.g. with special filler UZIN XS 3.2	with mixing ratio 1:10: approx. 10 kg UZIN PE 460 + 100 kg special filler UZIN XS 3.2 -> approx. 64 litres of compressed mixture or: each cm/m ² : 1.6 kg UZIN PE 460 + 16 kg special filler UZIN XS 3.2	after 7 days*

*At 20 °C and 65% relative humidity, with tempered containers. Material consumption is increased at lower temperatures and depends on the roughness of the substrate.

IMPORTANT NOTES:

- A shelf life of 12 months when stored in moderately cool conditions, in the original packaging. Allow containers to come to room temperature before use.
- Best applied between 15 20 °C, with the floor temperature above 15 °C and relative air humidity below 65%. High temperatures and high air humidity shorten the drying time. Whilst low temperatures and low air humidity lengthen the drying time.
- Caution: Epoxy material can become extremely hot after mixing in the container. Therefore use the material immediately, don't leave the container unattended after mixing and take the bucket outside after use to allow residues to cure.
- Two coats are required when using as a moisture barrier up to 5 CM% / 98% RH.
- A surface barrier cannot be applied onto old cement screeds with levelling compound residues or moisture sensitive substrates.
- Contact UZIN Technical Service for advice if a moisture barrier is required on cementitious screeds with underfloor heating or concrete sole plates are present.
- When used over underfloor heating ensure it has been commissioned and fully tested in accordance with the manufactures guidelines.
- If installing wooden floors with UZIN reactive resin adhesives directly to the primer this must happen within 48 hours after applying the primer.

UZIN PE 460



- For use in PAH decontamination please refer to the detailed system recommendations and notes on the internet (www.uzin.com).
- For priming metal substrates, prepare a test area or contact UZIN Technical Service for advise.
- For use as a levelling compound, allow the primer to dry. Apply the compound within 24 to 36 hours on the cured primer. If this is not possible, blind the wet primer with UZIN Perlsand 0.8. Once cured, remove any loose sand which has not embedded.
- Apply epoxy mortar "wet in wet" on the primer.
- Protect freshly applied epoxy mortar areas from draughts, direct sunlight and sources of heat.
- Do not mix partial quantities!
- When mixed with the UZIN Epoxy Accelerator it will not achieve EC 1 PLUS classification.
- Follow the generally acknowledged rules of the trade and technology for the installation of wood flooring and floor covering in respective of the applicable national standards (e.g. EN, DIN, OE, SIA, etc.).

SEALS OF QUALITY & ECOLABELS:

Solvent-free

EMICODE EC 1 PLUS / Very low emission

COMPOSITION:

Polyamine-hardened epoxy resin.

PROTECTION OF THE WORKPLACE AND THE ENVIRONMENT:

Solvent-free. Non flammable. Comp. A: Contains epoxy resin/irritant. Comp. B: Contains amine hardener/corrosive. Both components: May cause irritations or burns to eyes, skin or respiratory system. May cause sensitisation by skin contact. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Use barrier cream, protective gloves and safety-goggles. In liquid form, "hazardous to the environment", therefore do not allow into drains, water courses or landfill. Observe safety information on product label as well as safety data sheet. Once cured, has neutral odour and presents no physiological or ecological risk.

DISPOSAL:

Where possible, collect product residues and re-use. Do not allow dispersal into drains, sewers or ground. Empty, scraped and drip-free containers are recyclable. Containers with liquid residue, as well as the liquid product, are classed as Special Waste. Dried product residues are classed as Construction Waste. Therefore collect waste material, mix both components and allow to harden, then dispose as Construction Waste.

The above information is based on our experience and careful investigations. The variety of associated materials and different constructions and working conditions cannot be individually checked or influenced by us. The quality of your work depends, therefore, on your own professional judgement and product usage. If in doubt, conduct a small test or obtain technical advice. Observe the installation recommendations of the floor covering manufacturer. The publication of this Product Data Sheet invalidates all previous product information. The respective updated version of this datasheet can be found on our Homepage under www.uzin.com | 07/2020