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## GET TO KNOW ELEMENTAL MULTILAYER DL100 FEATURING ISOCORE TECHNOLOGY™

- General information: When installing ELEMENTAL Multilayer DL100 flooring, always use best practices and follow the applicable standards for the installation of floorcoverings, such as BS 8203 in the UK and VOB, Part C, DIN 18365 in Germany and all other relevant European, national and local standards.
- ELEMENTAL Multilayer DL100 is intended for interior commercial use only and is suitable for above-grade (suspended) on-grade (in contact with ground) and below grade (basement) applications. However, ELEMENTAL Multilayer DL100 should not be installed in locations where the substrate beneath the building structure is exposed to the elements.
- ELEMENTAL Multilayer DL100 is to be installed as a floating floor system and must be free to move as a monolithic unit in response to changes in temperature. It must not be glued, nailed, or fastened to the substrate, walls or fixed to any part of the building structure. Permanent fixtures such as walls, partitions, shelving, cabinets, displays, counters, tracks for transition profiles and similar items should be installed first, then fit ELEMENTAL Multilayer DL100 around them, leaving a space for expansion and contraction. Fill expansion spaces around potentially wet areas with premium waterproof 100% silicone sealant. Always remove standing water, pet urine and other liquids promptly.
- Direct sunlight may cause ELEMENTAL Multilayer DL100 to fade or to expand causing the floor to warp or to separate. Protect ELEMENTAL Multilayer DL100 from direct sunlight using window treatments or UV tinting on windows.
- ELEMENTAL Multilayer DL100 is a waterproof floating floor, but it should not be used to seal an existing floor from moisture. ELEMENTAL Multilayer DL100 cannot inhibit the growth of mould or prevent structural problems associated with, or caused by flooding, excessive moisture, alkalis in the subfloor, or conditions arising from hydrostatic pressure. Regardless of location, always remove standing water, urine and other liquids promptly. Jobsite moisture issues must be addressed and corrected prior to installation.

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## PRE-INSTALLATION ESSENTIALS

*Your job will be smooth, fast and easy when you follow the essentials every time you install ELEMENTAL Multilayer DL100.*

### EVALUATE THE JOB SITE

#### EXTERIOR

*Damage caused by water and high humidity should be addressed prior to installing ELEMENTAL Multilayer DL100.*

- Examine the driveway, parking area's and landscaping surrounding the building. Be sure that they slope and direct water away from the foundation.
- Inspect gutters, down spouts and drains for blockage. Remove clogs caused by leaves, dirt and debris, allowing runoff to flow freely away from the foundation.
- Check crawl spaces for cross-ventilation air vents. Crawl spaces should be insulated according to the latest building code requirements.

#### INTERIOR

*Jobsite moisture issues must be addressed and corrected prior to installation.*

- Examine the installation site for leaky plumbing, including leaks from sprinkler heads, toilets, water heaters, water fountains, radiators or any other water-bearing fixtures or pipes.
- Inspect substrates for levelness. They must be sturdy, sound, and flat within 3mm in a 1,8 meter radius, or 5mm within a 3 meter radius. The substrate should not slope more than 25mm per 1,8 meters in any direction.
- ASPECTA™ requires testing of concrete substrates for moisture and pH before installing ELEMENTAL Multilayer DL100. Test results should not exceed 85% relative humidity (RH). PH tests for alkalinity levels should register between 7 and 9.
- ASPECTA™ requires testing of wood substrates for moisture. Obvious signs of moisture issues include warping, peaking, degradation of the integrity of the substrate, rusted fasteners, and rusted floor registers. Even if obvious signs are not present, the material should be tested using a professional moisture meter and moisture levels should not exceed 14%.

**ATTENTION:** Mould and mildew grow only in the presence of moisture. Jobsite moisture issues must be addressed and corrected prior to installation.

### IDENTIFY YOUR SUBSTRATE

#### APPROVED SUBSTRATES

*ELEMENTAL Multilayer DL100 is suitable for use over a wide variety of substrates.*

#### CONCRETE

All subfloors should be tested and prepared according to the applicable standards for the installation of floorcoverings, such as BS 8203 in the UK and VOB, Part C, DIN 18365 in Germany and all other relevant European, national and local standards.

ELEMENTAL Multilayer DL100 is waterproof, but jobsite moisture issues must be corrected before installation begins to prevent serious damage to the subfloor and surrounding structure, and to discourage the growth of mould and mildew. Concrete substrates must be sturdy, sound, and flat within 3mm within a 1,8 meter, or 5mm within a 3 meter radius. The substrate should not slope more than 25mm per 1,8 meters in any direction. Moisture and alkalinity tests should be performed on all concrete substrates regardless of grade level or age of slab. Test results should not exceed 85% relative humidity. PH tests for alkalinity levels should register between 7 and 9. All moisture tests should be conducted several days prior to installation to be sure that the substrate is in compliance.

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#### UNDERFLOOR HEATING

Installations where underfloor heating is used, follow current DIN 18365 and EN 1264 Standards. The maximum working temperature on the surface of the substrate is 30°C. Installation over electrical systems is not allowed.

#### TIMBER, PARTICLEBOARD & CHIPBOARD

Wooden substrates must be sturdy, sound, and flat within 3mm within a 1,8 meter radius, or 5mm within a 3 meter radius. The substrate should not slope more than 25mm in 1,8 meters in any direction. ASPECTA™ recommends performing moisture tests prior to installation to prevent serious damage to the subfloor and surrounding structure, and to discourage the growth of mould and mildew. Moisture readings should never exceed 14% for plywood, particleboard and chipboard substrates. If moisture readings exceed 14%, it is advisable to correct moisture issues at the jobsite before installing ELEMENTAL Multilayer DL100.

#### TILE, TERRAZZO, ASBESTOS TILE, RESILIENT TILE, NON-CUSHION SHEET VINYL, & METAL

Existing floors must be firmly attached to the structural floor. In order to prevent vertical deflection (movement) and potential damage to the integrity of the ELEMENTAL Multilayer DL100 flooring, all substrates must be sturdy, sound, and flat within 3mm within a 1,8 meter radius, or 5mm within a 3 meter radius. The substrate should not slope more than 25mm per 1,8 meters in any direction. Fill in grout lines on ceramic tiles, terrazzo, quarry tiles and similar floors with cementitious levelling and patching compound. **Attention:** *Read the specific guidelines for installation of ELEMENTAL Multilayer DL100 flooring over existing ceramic tile flooring, in the “Key Installation Considerations” on page 5 of this manual!*

#### UNACCEPTABLE SUBSTRATES

*Remove the floors noted below and remove old adhesive before installing ELEMENTAL Multilayer DL100. Encapsulate adhesive and cutback residue by covering with a suitable smoothing compound to create a barrier.*

- Parquet Over Concrete
- Hardwood Over Concrete
- Cushion Back Sheet Vinyl
- Engineered Hardwood Over Concrete
- Carpeting/Carpet Pad
- Floating Floors
- Sleeper Substrates

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#### **PREPARE THE JOB SITE**

*Careful preparation is the key to outstanding results. All Trades Must Finish Before Installing ELEMENTAL Multilayer DL100.*

- Building envelope should be fully enclosed with windows and exterior doors permanently installed.
- Turn on Central Heating Ventilation and/or Air-Conditioning at least one Week Prior to Installation- Room temperature should be maintained between 18°C and 29°C at least 48 hours prior to installation and continuously between 12°C – 35°C for the life of the floor.
- ELEMENTAL Multilayer DL100 flooring is more dimensionally stable than typical floating wood or vinyl based flooring products, however 48 hour acclimation is required. ELEMENTAL Multilayer DL100 flooring subjected to extreme hot or cold conditions can cause the material to become too flexible or rigid, making the material difficult to install and potentially causing damage to the locking system. Optimum material and building temperature range for installation is 18°C – 29°C.
- Allow all other Trades to Finish
- Perform Recommended Moisture and pH Tests - See the “Identify Your Substrate” section of this manual for further information about suggested tests.
- Level Uneven Substrates- All subfloors must meet all minimum standard building codes. Fill large cracks and voids with cementitious levelling and patching compound. In order to prevent vertical deflection (movement) and potential damage to the integrity of the ELEMENTAL Multilayer DL100 flooring, all substrates must be sturdy, sound, and flat within 3mm within a 1,8 meter radius, or 5mm within a 3 meter radius. The substrate should not slope more than 25mm per 1,8 meters in any direction.
- Remove Skirting Mouldings- Remove wall skirtings prior to installation. Leave appropriate expansion space between the edge of the flooring and walls or vertical surfaces.
- Fill Grout Lines - When installing over existing ceramic tile or stone floors fill the grout joints to obtain a smooth surface. Follow floor flatness requirements. **Refer to chart “Key Installation Considerations” on page 5.**
- Remove Unapproved Substrates
- Remove or Encapsulate old Adhesive- old adhesives must be scraped up and left so that no ridges or puddles are evident and what remains is a thin, smooth film. Then encapsulate residue to prevent the new flooring from attaching itself to the substrate.
- Undercut Wood Door Casings- Wood door casings should be undercut so that ELEMENTAL Multilayer DL100 will fit neatly beneath them, concealing the expansion space.
- Cut Around Metal Door Casings- Do not cut metal door casings. Cut ELEMENTAL Multilayer DL100 around them, leaving the appropriate expansion space. After installation, fill the space with a coordinating premium waterproof 100% silicone sealant.
- Clean Up the Job Site- Remove all debris, sweep and vacuum the subfloor. Smooth, non-porous floors should be damp- mopped after vacuuming and allowed to dry thoroughly before installing ELEMENTAL Multilayer DL100. All dust must be removed prior to installation.

#### **CHECK BATCH NUMBERS AND MANUFACTURE DATE**

Locate the batch number on the short end of each carton and verify that all of the material for your job is from the same batch. Minor shade variations within the same batch number contribute to the natural look of ELEMENTAL Multilayer DL100. To avoid noticeable shade variations, do not install material from different batch numbers across large expanses.

To determine manufacture date, locate the batch number on the short end of the carton. It is the eight-digit number separated by decimal points beginning with the two-digit day, then the two-digit month, and finally the four-digit year.

Batch Number/Manufacture Date

29.10.2013  
DAY.MONTH.YEAR

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## KEY INSTALLATION CONSIDERATIONS

<b>Subfloor Flatness Tolerances</b>	5 mm in 3 meters or 3 mm in 1,8 meters Slope no more than 25mm in 1,8 meters
<b>Damp Proof Membrane – 0,20mm</b>	Not Required
<b>Is underlayment (underlay) required</b>	No – ELEMENTAL Multilayer DL100 includes an integral pre-attached underlayment
<b>Acclimation Requirements</b>	48 hours*
<b>Maximum Installation area without expansion joints in the middle of the floor</b>	Can be installed in areas/rooms up to a maximum of 1000 m <sup>2</sup> (33m x 33m) without the need of expansion joints in the middle of the floor! T-Mold Transition requirements for larger areas/rooms: Are required in rooms greater than 33 meters in either direction! NOTE: always respect that expansion joints of 10mm are required around perimeter walls, pipes and heavy fixed objects.
<b>Transition Requirements (T-Mould) Doorways/Thresholds</b>	Required
<b>Glue Down Installation</b>	Not Required/Not Recommended
<b>Internal Subfloor Relative Humidity (RH) Recommendations</b>	Maximum 85% RH when tested with a hygrometer, in accordance with BS 8203: 2001. Appendix A
<b>Underfloor/Subfloor Heating</b>	Approved: Substrate surface temperature must not exceed 30°C! Installation over electrical systems is not allowed
<b>Installation over existing ceramic-, stone-, terazzo-and resilient tiles</b>	Can be installed on top of existing ceramic or stone tile floors, respecting a maximum grout-line-width of 4 mm and a maximum grout-line-depth of 2 mm! The maximum accepted height difference between adjacent tiles is 1 mm. <b>NOTE:</b> In all other situations then explained; Fill in grout lines with cementitious levelling and patching compound and follow instructions as described in "Identify your Substrate" in this manual!
<b>3-Season/Non-Climate Controlled Environments</b>	Not Recommended
<b>Expansion Requirements</b>	10 mm around perimeter walls, pipes and heavy fixed objects such as cabinetry**
<b>Optimal Interior Environmental Conditions</b>	During installation: between 18°C and 29°C During life of flooring: between 12°C – 35°C and 40% – 60% RH (Relative humidity)
<b>Definition of "Waterproof"</b>	Structural integrity of flooring will not degrade due to contact with moisture/water***
<b>Installation in Glass houses and Winter garden</b>	Can be installed in Glasshouses / Winter gardens taking into consideration the following important criteria; <b>(1)</b> Room/building temperature before or during installation must be between 18°C and 29°C. <b>(2)</b> Normal room temperature after installation (when floor is in use) must be between >12°C and 35°C. <b>(3)</b> Maximum floor surface temperature allowed (caused by direct sunlight) is 60°C. <b>(4)</b> Room air ventilation is required in both winter and summer season! <b>NOTE:</b> Direct Sunlight may cause fading of your floor! Always protect your floor from direct sunlight using window treatments or UV protection foil on windows!

\*ELEMENTAL Multilayer DL100 flooring is more dimensionally stable than typical floating wood or vinyl based flooring products, however acclimation is required. ELEMENTAL Multilayer DL100 flooring subjected to extreme hot or cold conditions can cause the material to become too flexible or rigid, making the material difficult to install and potentially causing damage to the locking system. Optimum material and building temperature range for installation is 18°C – 29°C.

\*\*If installing ELEMENTAL Multilayer DL100 in an environment that has a length or width greater than 33 meters, a T-Moulding should be utilized to separate the floor into two (2) separate sections.

\*\*\*While ELEMENTAL Multilayer DL100 is waterproof, it is not intended for use as a moisture mitigation system.

**ATTENTION:** Only installation techniques described in this installation guide are warranted. ASPECTA™ BV does not warrant ELEMENTAL Multilayer DL100 installations involving custom cutting, such as 45-degree mitered corners and serpentine edges. Please refer to the ELEMENTAL Multilayer DL100 warranty for complete warranty details and exclusions.

ELEMENTAL Multilayer DL100 with ISOCORE Technology™ is patent pending in the US application number 14/846,407 and in Europe application number EP15193421.3.

DROPLOCK 100™

INSTALLATION FOR ELEMENTAL Multilayer FLOORING  
WITH DROPLOCK 100™ PROFILE

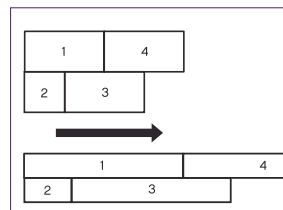
Installation will move from left to right beginning in the left corner with tongue side of long edge facing the wall. First measure the distance between the starting wall and ending wall. It may be necessary to cut the first row to balance the layout and to prevent having a small cut at the end wall.



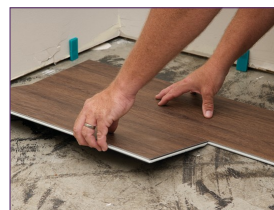
**1. SET SPACERS**  
Create the required expansion space between the perimeter planks and the wall using spacers. Place spacers equalling the thickness for required expansion between plank and wall on short and long ends of plank. Do not remove them until the installation is complete.



**2. INSTALL FIRST PLANK**  
Position the first plank against a spacer a few millimetres from the starting wall.



**3. ESTABLISH PROPER STAGGERING**  
Maintain a minimum 150mm end-joint stagger from row-to-row throughout the entire installation. Tile products should be staggered in a brick laid pattern with stagger equal to 1/2 of a tile. Installation alternates back and forth between rows one and two, for the first two rows only.



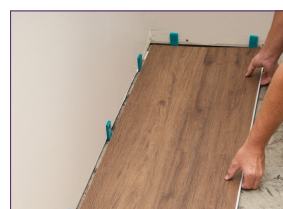
**4. FIRST PLANK SECOND ROW**  
Cut the first plank in the second row to one-third its length before installing it. Insert the long tongue edge of the plank into the long groove edge of the first plank. Make sure there are no gaps. Tap along the long groove edge using a tapping block.



**5. SECOND PLANK SECOND ROW**  
Insert the long side then slide the plank until the short tongue touches the short groove edge on the first plank of the second row. Press the joint into place with your fingers and tap the short joint with a lightweight rubber hammer. Square the joint by tapping the long edge of the plank using a tapping block, if necessary.



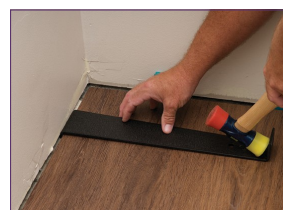
**6. SECOND PLANK FIRST ROW**  
Select a full plank and position the long groove edge into the tongue of the second plank in the second row. Press, tap and square as before. Repeat the same installation pattern until you reach the opposite wall and cannot install another full plank.



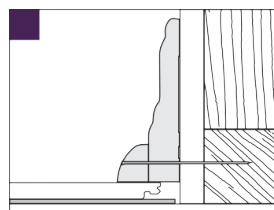
**7. INSTALL THE LAST PIECES OF ROWS 1 AND 2**  
Cut to fit, maintaining the expansion gap. Install as before. Move the entire assembly against the spacers on the starting wall.



**8. INSTALL REMAINING ROWS**  
Install the remaining material, one row after the other. Always press, tap and square as you go, and maintain the required stagger throughout the install.



**9. INSTALL THE LAST ROW**  
Cut the final row of planks to fit along the wall. Use a pull bar to lock the long edges together. Do not use the pull bar on the short edges.



**10. FINISH THE JOB**  
Remove spacers. Cover expansion space with skirting, quarter round or other trim, being sure not to trap or pin down the floor.

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## GENERAL CARE & MAINTENANCE

### ROUTINE CARE & MAINTENANCE

- Sweep, dust mop or vacuum daily. Do not use vacuums with any type of beater bar assembly.
- Lightly damp mop with a neutral PH cleaner. Remove excess soil by carefully scrubbing with a soft nylon brush, micro fibre mop or sponge with a neutral PH cleaner.
- Remove scuffs using a neutral PH cleaner and a soft nylon brush or sponge.
- Heavily soiled floors may require an occasional deep cleaning using a neutral PH cleaner, spray bottle and a low-speed buffer not exceeding 300 RPM. Fit the buffer with a red or white scrubbing pad, spray the cleaner solution onto a manageable area of the floor and scrub. Remove the dirty residue by damp mopping with clear water. Caution: Do not flood the floor.
- Remove standing water, urine and other liquids promptly. Follow with a neutral PH cleaner.

### PREVENTIVE CARE

- Use walk-off mats at all outside entrances.
- Use only flat felt or soft plastic glides at least 50mm in diameter under furniture legs or freestanding displays and fixtures to prevent indentations and scratches.
- Use broad surface non-staining casters at least 50mm in diameter on rolling fixtures or furniture.
- Do not use vinegar, polishes, waxes, oil soaps, abrasive cleaners, harsh detergents or solvents.
- Use non-staining mats.
- Do not expose to direct sunlight for prolonged periods.
- Do not use steam cleaners.
- Do not flood floor or subject to standing liquids including urine.

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