PRODUCT DATASHEET

PlekoFloor ESL

PRODUCT DESCRIPTION

PlekoFloor ESL is a self-leveling, seamless architectural flooring system formulated from high-performance, solvent-free epoxy resins combined with specially selected graded aggregates. It delivers a smooth, dense, and non-porous finish that is easy to clean and highly hygienic, offering outstanding resistance to both chemical exposure and mechanical wear

USES

PlekoFloor ESL is ideally suited for use in a wide range of industrial and commercial environments where cleanliness, durability, and chemical resistance are essential. Typical areas of application include:

- Clean rooms and sterile processing zones
- Laboratories and research areas
- Warehouses and high-density storage facilities
- Showrooms and commercial display areas
- Medical centers and healthcare facilities
- Decontamination zones
- Cosmetic and pharmaceutical production spaces
- TV and media studios
- Commercial laundries.

PACKAGING

58 Kg multi-components pack - including color Pack.

COVERAGE

As a general reference, PlekoFloor ESL requires approximately 1.8 kg/m² per mm of thickness when applied as a self-smoothing wearing surface.

PROPERTIES

- **Slip- Exceptional durability ensures long-lasting performance and reduced replacement frequency.**
- **Seamless, joint-free finish eliminates hiding spots for bacteria and makes cleaning more effective.**
- **Resistant to both chemical exposure and mechanical wear, suitable for a wide variety of industrial and hygienic applications.**
- **Low-maintenance surface that's easy to clean, helping to reduce long-term upkeep costs.**
- **Decontaminable finish supports hygienic environments by allowing thorough removal of bacteria.**
- **Available in a broad color range, providing design flexibility and the ability to customize spaces.**
- **Supplied pre-measured and factory-proportioned, minimizing the risk of mixing errors on-site.**

TECHNICAL DATA

Property	Method	Value
Compressive strength	ASTM C579-93	≥85 N/mm^2 (7days)
Flexural Strength	ASTM C580	≥35 N/mm^2.
Tensile Strength	ASTM C307	≥20 N/mm^2
Abrasion resistance	ASTM D4060	˜50mg
Water Absorption	ASTM C413	≤0.05%
Initial Curing time*		24 hrs
Full cure time*		7 Days

*Curing times are approximate and may be affected by surrounding ambient conditions.

CHEMICAL RESISTANCE

To ensure that **PlekoFloor ESL** meets the chemical resistance requirements of your specific environment, it is recommended to consult with a Pleko representative. Special consideration should be given to the nature of the cleaning agents used, the frequency and intensity of

cleaning routines, and the temperature of any substances or cleaning processes involved.

INSTALLATION

MIXING

To reduce the risk of color inconsistencies across the project, it is recommended that all **PlekoFloor ESL** color packs used are from the same production batch.

Mixing should be carried out using a slow-speed drill (600–900 rpm) equipped with a spiral mixing paddle, or alternatively, a suitable pan or forced-action mixer for larger quantities.

Begin by pre-mixing the **PlekoFloor ESL** Part A resin. Add the Pleko color pack and mix thoroughly to achieve full pigment dispersion. Then incorporate Part B hardener and continue mixing. Gradually introduce the Pleko ESL filler while mixing for an additional 3 minutes.

During this time, scrape the sides and bottom of the container to ensure a uniform, lump-free, and consistent mixture.

Make sure all material is fully emptied from containers before disposal.

SUBSTRATE PREPARATION

To ensure proper adhesion of **PlekoFloor ESL**, all contaminants such as grease, oil, dust, laitance, curing agents, and release agents must be thoroughly removed. Preferred preparation methods include light sweep blasting or hydro-jetting. For smaller areas, mechanical wire brushing may be sufficient.

Damaged or spalled concrete should be cut back to sound substrate and repaired using an appropriate Pleko cementitious repair mortar. Conventional curing compounds must be eliminated prior to application.

The substrate must meet minimum compressive strength requirements of 25 MPa, and for ground-contact slabs, a compliant vapor barrier must be present, or the surface must be primed with PlekoFloor EP120 primer.

After surface preparation, ensure that the tensile bond strength is at least 1.5 N/mm² and that the moisture content does not exceed 8%. The substrate temperature must remain at least 3°C above the current dew point to prevent condensation.

PRIMING

Prior to application of **PlekoFloor ESL**, the prepared substrate must be primed using PlekoFloor EP 120 primer at an approximate coverage rate of 5 m² per litre. Ensure the primer is applied evenly to fully seal the surface and eliminate any pores or voids. Allow the primer to become completely tack-free before proceeding with the next layer of the system.

APPLICATION

Once mixed, **PlekoFloor ESL** should be poured onto the prepared and primed surface and applied using a notched or flat trowel to a minimum thickness of 2 mm. Immediately after placement, the surface must be spike-rolled within 5 minutes to eliminate entrapped air and achieve a uniform finish. For optimal results, ensure continuous application and complete laying within 15 minutes of mixing. It is advisable to carry out a small trial area at the beginning of the project to confirm the desired finish and ensure approval before full-scale application.

CURING

A minimum waiting period of 8 hours and a maximum of 24 hours should be observed between the application of the PlekoFloor EP 120 primer and PlekoFloor ESL. If this interval is exceeded, the primer must be either lightly broadcast with sand during curing or mechanically reactivated followed by solvent wiping prior to overcoating. After application, the floor should be protected from any traffic or liquid exposure for at least 48 hours. Full mechanical strength and chemical resistance will be achieved after 7 days of curing.

CLEANING

All tools and application equipment should be cleaned immediately after use by using a suitable solvent such as Xylene, MEK, or Acetone. Once the material has hardened or cured, removal is only possible by mechanical means.

STORAGE

PlekoFloor ESL components should be kept in their original, tightly sealed containers and stored in a controlled environment with temperatures maintained between 10°C and 30°C.
Shelf life is up to 12 months when stored properly.

HEALTH AND SAFETY

Before using this product, the user must consult the most recent Safety Data Sheet (SDS). The SDS offers essential guidance on safe handling, storage, and disposal, and includes important information on the product's physical, toxicological, ecological, and other safety-related properties.