

PolySoft Specifications for Tender

SCOPE OF WORKS

Under surfacing to be installed as per Landscape Architect's or Architect's drawings and will include;

Supply and installation of PolySoft (Polyolefin Plastomer particles) chemically bonded with PolySoft two part moisture cured aliphatic polyurethane. Rubber cushion layer is to be installed under all playground equipment as per playground manufacturer's directive, to comply with all local requirements and standards. Depth of material to meet required fall heights is the responsibility of the installer.

All applications must be completed by an authorised installer.

STANDARDS AND CODES

Comply with the relevant Codes and Australian/International Standards, including;

- AS/NZ 4422:1996 Playground Surfacing – Specifications, Requirements and Test Methods
- ASTM F-1292-09 Playground Surfacing – Specifications, Requirements and Test Methods
- AS/NZ 1530.3 1999 Simultaneous Determination of Ignitability, Flame Propagations, Heat Release and Smoke Release – Specifications, Requirements and Test Methods
- AS/NZ4586:2004 – Slip Resistance Classification – Specifications, Requirements and Test Methods

MATERIALS

Surface Wear Layer

The wear layer shall be equal to PolySoft (Polyolefin Plastomer)

The product shall match the following characteristics:

Particle Size: 3:1 ratio 3mm particle +/- 0.5mm to 1mm particle +/- 0.25mm

Polyurethane: Two part moisture cured aliphatic produced by PolySoft.

UV degradation: Blue wool colour scale Class 8

Hardness: 75 Shore A

Fire Grading: Group 1

Oil/Wet Slip Grading: R10

Wet Barefoot Ramp Grading: Class C

Country of Origin: Australia

PolySoft shall not be mixed or combined with any other supplier's products or materials

Possible Supplier: PolySoft Pty Ltd – Phone: +61 2 9620 7231

PolySoft Polyurethane

- Shall be a two-part, moisture-cured, aliphatic polyurethane binder as produced by PolySoft.
- It is not acceptable to mix two products from different suppliers.
- The contractor is to confirm binder source with the Principal Representative prior to installation.

Rubber Base Layer

- Where impact attenuation is required, a suitable tested cushion material is to be used. Depth of base material is the responsibility of the installer to ensure it complies with the playground manufacturer's directive and all local requirements and standards.

WORKMANSHIP

Compacted Base Course

Road base source and composition shall comprise of approved road base stabilised with 3% cement by volume if required. Depth and requirements may vary for individual sites and would be subject to modification with additional drainage etc. A minimum of 100mm is recommended however this is only a recommendation and the contractor must ensure it meets the site requirements for drainage, stability and durability. It is the responsibility of the installation contractor to ensure all base works are completed correctly and to ensure they comply. Please note that it is not recommended to install PolySoft directly over road base. A layer at a minimum of 10 - 20mm of rubber should be applied at a ratio of 20% aromatic binder by weight to ensure a smooth finish ready for the application of PolySoft.

Concrete Surface

Concrete should be a minimum 20 MPa and must be cured for at least 28 days prior to installation and comply with recommended moisture content and international standard. Any variation or request for earlier engagement of surface treatment will be done so at the responsibility of the concrete contractor and or general contractor.

Concrete should be tested for correct adhesion prior to installation.

APPLICATION

Preparation of Concrete

- Where new concrete is being laid a light nylon broom finish is preferred.
- Surface must be clean and free of contaminants such as grease, dirt and existing unsound coatings. This is to be checked and cleaned by contractor.
- Where necessary, shot blast or diamond grind to remove any contaminants and achieve a finish to enable a mechanical bond between substrate and primer.
- If a curing agent has been used the surface must be checked for compatibility (test for adhesion) or removed prior to installation.
- Apply PolySoft two part water based epoxy primer at least two hours prior to installation and no later than 24 hours.

Rubber Cushion

Where a cushion underlay is required prior to application of PolySoft, the following points should be observed

- Depth of base material is the responsibility of the installer to ensure it complies with the playground manufacturer's directive and all local requirements.
- This layer is to be laid as a single surface to avoid dry joints.
- Once rubber base layer has fully cured, prime the surface using PolySoft primer and apply the PolySoft wear layer in accordance with instructions.
- It is not recommended for water to be applied as catalyst for rubber base layer, especially if indoors.
- If outdoor temperature is above 25 degrees Celsius, the surface can be misted however any evaporation of excess water being used on the surface can significantly reduce work time of PolySoft.
- Ratio of binder to rubber should be strictly a minimum 10% by weight.
- Surface must be smooth and free of loose rubber.
- Prior to wear layer application; prime the surface as per PolySoft instructions.
- Ensure rubber cushion is compacted tighter and more binder is added at fixed borders including poles at minimum distance of 200mm back.
- The top surface of rubber cushion should be smooth, flat and tightly bound as to not allow PolySoft granules to fall into cavities. The under surface of a Polysoft layer should be flat.
- When connecting PolySoft to a vertical surface is important to connect with maximum surface area. Please refer to PolySoft DWG – 8-10mm Porous Over Rubber Attenuation Layer. All connecting surfaces must be primed. This will help in preventing pulling away from surface. Please note where cushion is applied next to a solid edge, it can shrink over time possibly causing the PolySoft to separate. This is not considered a product fault.

Acceptable Alternative for Rubber Base Layer

- A prefabricated rubber cushion tile comprising of a SBR bound with polyurethane.
- Depth of base material is the responsibility of the installer to ensure it complies with the playground manufacturer's directive and all local requirements.

PolySoft Wear Layer

Please note that all full mixes of PolySoft regardless of colour percentage or colour make up must contain the following:

42 kilograms of large particle

14 kilograms of small particle

Part A 5.42 kg

Part B 0.28 kg

- Avoid mixing in a damp and humid environment where possible as this may speed up cure. This can lead to insufficient time to achieve desired finish and to maintain a wet edge.
- Mix and trowel PolySoft to 8-10mm thickness ensuring surface is smooth and compacted.
- Sufficient skilled labour should be on hand to trowel one kit (6-7m²) down in less than 30 minutes.
- Check wet edge at regular intervals and keep adding to it if necessary
- Mark out area to confirm spread rate is on target.
- When finishing temporarily in applications over concrete, always trowel up to a straight edge or formwork. This will result in a smooth and even transition to next application area.
- When creating joints between colours over rubber cushion, we recommend using a key joint method (please refer to PolySoft DWG – Colour Joint Detail On Impact Attenuation Layer), using a 30mm key joint at a depth or step down of 5mm. To continue the next colour, trowel over the top of the primed key with the next colour at depth of 5mm. Where the key ends, ensure that a 10mm depth is repeated for a minimum of a 100mm
- Follow PolySoft recommendations with regard to ideal humidity and temperature ranges for all installations. Do not proceed if site conditions are outside of these parameters.

WARRANTIES

PolySoft provides a five (5) year manufacturer's warranty on its products for dry play installation and three (3) year manufacturer's warranty for wet play installations.

PolySoft certified installers will provide an additional installation warranty.