# Quartzline Polyaspartic

## Description

Quartzline Polyaspartic is a high-gloss coating based on 2-component aliphatic polyaspartic that is available in a transparent and a coloured version. Polyaspartic is fast setting so that the floor can be used again in no time.
Given that you can apply multiple coats on 1 day, Polyaspartic is part of a so-called 'ODS' (one-day system).

This coating stands out for its excellent UV resistance.
Does not contain any alkylphenols, benzyl alcohol, or other solvents.

## Properties

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|---|---|
| Fast reaction rate | |
| Aliphatic, i.e. non-yellowing | |
| Easy to clean | |
| Solvent-free | |
| Viscosity [1] (mPa.s) | 1000 - 1250 |
| Density [2] (g/cm[3]) | 1.10 |
| Pot life @ 20ºC (min) | ~ 30 |
| Thin film set time @ 25ºC/70% RV (min) | 45 |
| Wear resistance [3] (mg) | < 70 |
| Shore D hardness @ 25 ºC (7d) | > 70 |
| Persoz hardness @ 25 ºC (7d) | > 275 |

[1] = Brookfield RVTD, spindle 4, @ 25ºC
[2] = ISO 2811-1, + 23ºC / 50% R.H3
[3] = Taber Abrasion, CS17, 10N and 1000 cycles

## Form

**Polyaspartic Coloured Component A:** Liquid, coloured
**Polyaspartic Transparent Component A:** Liquid, clear

**Polyaspartic Component B:** Liquid, clear transparent

**Always order all the material for a project in one go.**

## Packaging

Component A: 4.70kg bucket
Component B: 2.80kg bucket

Component A+B: 7.5kg set

## Shelf life/Storage

Up to 12 months after the production date in its original packaging, sealed, unopened and undamaged, stored in dry conditions between +5ºC and +30ºC.

## Processing

**Mixing ratio:** Component A : Component B = 62.5 : 37.5 (weight parts)

Add all of the component B liquid to component A and mix for 2 minutes until you get a homogeneous mixture. Pour the mixture into a clean bucket and mix for another minute. This is to prevent any unmixed parts sticking to the edge and/or bottom.

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While mixing, always make sure the mixing spiral is completely submerged in the liquid. Make sure you use the right mixing spiral. For 1 set, we always use a WK70 mixing spiral in combination with an 8.6 litre bucket, while for 2 sets we always use a WK90 mixing spiral in a 20-litre bucket.
The mixing is supposed to create an eddy in the centre of the bucket and the coating must never make a slurping sound and spatter while it is being mixed. As soon as that happens, reduce the mixing speed.

## Coating system composition

**Primer:** Primer GW. This primer offers outstanding physical adhesion properties and will adhere well to most substrates.

**In case of doubt, conduct an adhesion test first. An adhesion test is always recommended.**

**Wearing surface 1:** ***Quartzline Polyaspartic Coloured***

**PLEASE NOTE:** Polyaspartic Coloured must be coated over within 24 hours.

**Wearing surface 2:** ***Quartzline Polyaspartic Coloured***
(optional)

**PLEASE NOTE:** Polyaspartic Coloured must be coated over within 24 hours.

**Top coat:** (optional) For a matt or satin gloss look, apply an additional coat of Coating PU MG Satin Gloss or Coating PU MG Matt over the polyaspartic **within 24 hours**.

## Quantity needed

| Coating system | Product | Quantity needed |
|---|---|---|
| Primer | Primer GW | 100 - 150 g/m² |
| **Wearing surface 1** | **Polyaspartic Coloured** | **250 – 300 g/m²** |
| **Wearing surface 2** (optional) | **Polyaspartic Coloured** | **250 – 300 g/m²** |
| Top coat 1 (optional) | Coating PU MG Matt / Satin Gloss | 150 - 175 g/m² |

Apply Primer GW. As soon as this coat of water-based Primer GW is transparent, even if it has not set completely, you can apply a coat of Polyaspartic Coloured.

If necessary, ventilate to speed up the drying process for the Primer GW. Setting depends on the temperature.

Applying a second coat of Polyaspartic Coloured for better wear resistance is possible.

## Non-slip system composition

**Primer:** Primer GW. This primer offers outstanding physical adhesion properties and will adhere well to most substrates.

**In case of doubt, conduct an adhesion test first. An adhesion test is always a good idea.**

**Wearing surface 1:** ***Quartzline Polyaspartic Coloured***

**PLEASE NOTE:** Polyaspartic Coloured must be coated over within 24 hours.

**Quartz:** To get the non-slip effect, sprinkle fire-dried 0.4-0.8mm, 0.8-1.4mm or 1-2mm quartz onto the coating. To prevent bald spots and stains, make sure you sprinkle the quartz evenly.

**Wearing surface 2:** ***Quartzline Polyaspartic Coloured***
(optional)

**PLEASE NOTE:** Polyaspartic Coloured must be coated over within 24 hours.

**Top coat:** (optional) For a matt or satin gloss look, apply an additional coat of Coating PU MG Satin Gloss or Coating PU MG Matt over the polyaspartic **within 24 hours**.

## Quantity needed

| Non-slip system | Product | Quantity needed |
|---|---|---|
| Primer | Primer GW | 100 - 150 g/m² |
| Wearing surface | **Polyaspartic Coloured** | **Approx. 200 g/m²** |
| Quartz | 0.4 – 0.8mm sand<br>0.8– 1.4mm sand<br>1 – 2 mm sand | 350 - 450 g/m²<br>450 - 550 g/m²<br>450 - 550 g/m² |
| **Top coat 1:** | **Polyaspartic Coloured** | **350 - 450 g/m²** |
| Top coat 2 (optional) | Coating PU MG Matt / Satin Gloss | 150 - 175 g/m² |

Apply Primer GW. As soon as this coat of water-based Primer GW is clear transparent, even if it has not set completely, you can apply a coat of Polyaspartic Coloured and then evenly sprinkle the quartz. As soon as it is dry, apply another coat of Polyaspartic Coloured.

If necessary, ventilate to speed up the drying process for the Primer GW. Setting depends on the temperature.

## Flake coating system composition

**Primer:** Primer GW offers outstanding physical adhesion properties and will adhere well to most substrates.

**In case of doubt, conduct an adhesion test first. An adhesion test is always a good idea.**

**Wearing surface:** ***Quartzline Polyaspartic Coloured***

**PLEASE NOTE:** Polyaspartic Coloured must be coated over within 24 hours.

**Flakes:** Choose an attractive mix with VX code from the Protect-Line Fast Cure sample folder.
Evenly sprinkle VX flakes over the wearing surface before it has dried. To prevent bald spots and stains, make sure you sprinkle the flakes evenly. Rather too much than too little.

**Top coat:** ***Quartzline Polyaspartic Transparent***

**PLEASE NOTE:** Polyaspartic Transparent must be coated over within 24 hours.

**Top coat 2:** ***Quartzline Polyaspartic Transparent***

**PLEASE NOTE:** Polyaspartic Transparent must be coated over within 24 hours.

**Top coat 3:** (optional) For a matt or satin gloss look, apply an additional coat of Coating PU MG Satin Gloss or Coating PU MG Matt over the polyaspartic **within 24 hours**.

## Quantity needed

| **Flake coating system** | **Product** | **Quantity needed** |
|---|---|---|
| Primer | Primer GW | 100 - 150 g/m² |
| Wearing surface | **Polyaspartic Coloured** | **Approx. 200 g/m²** |
| Flakes | 1mm flake VX<br>3mm flake VX | 350 - 450 g/m²<br>450 - 550 g/m² |
| **Top coat 1:** | **Polyaspartic Transparent** | **350 - 450 g/m²** |
| **Top coat 2** (optional) | **Polyaspartic Transparent** | **75 - 100 g/m²** |
| Top coat 3 (optional) | Coating PU MG Matt / Satin Gloss | 150 - 175 g/m² |

Apply Primer GW. As soon as this coat of water-based Primer GW is clear transparent, even if it has not set completely, you can apply a coat of Polyaspartic Coloured. Prevent puddling, because that would lead to a spotted surface after you sprinkle the flakes.

If necessary, ventilate to speed up the drying process for the Primer GW. Setting depends on the temperature.

When using 1mm flakes, you will need 350 – 450 g/m$^2$, while you will need 450 – 550 g/m$^2$ of 3mm flakes. The day after sprinkling the flakes, sweep the surface and recycle the flakes you sweep up, which will be approximately 15% of the quantity you sprinkled.

As soon as all of the loose flakes have been swept up, scrape the flakes and then sand the surface lightly by hand. This cannot be done using a machine because of the brittleness of the flakes. If you were to do it mechanically, the end result would not be an even surface.

Now remove all the dust from the floor and apply a coat of Quartzline Polyaspartic Transparent.

Quartzline recommends sanding the floor lightly 1 hour after applying 1mm flakes and then applying another coat of Polyaspartic Transparent to remove any protruding flakes with sharp edges. When using the 3mm flake coating system, this additional sanding and coating is actually necessary!

All values are theoretical and depend on absorption, roughness and flatness of the substrate and material loss etc.

Not using enough can lead to roller marks, gloss differences, and irregularities in the surface.

## Preparing the substrate

Concrete substrates must be pretreated mechanically using a dust-free blasting or grinding machine to remove the cement laitance and obtain a roughened, adhesive, and clean surface.

Weak concrete and loose cement-bound substrates must be removed and any surface imperfections, such as holes and hollow spaces, must be filled with Quartzline Epoxy Gel. **DO NOT USE UNSATURATED POLYESTER-BASED FILLER**, this does not provide any adhesion.

Repair any unevenness by, for example, sanding.
Before applying the product, all dust and loose elements must have been completely removed from all surfaces, preferably using a broom and/or industrial vacuum cleaner.

The concrete or sand cement substrate must be primed using Primer GW to guarantee good adhesion of the Quartzline Polyaspartic Coloured.

Layers of old paint/coatings must be removed as thoroughly as possible by dust-free blasting and/or sanding before applying the primer.
If there is any remaining old coating that cannot be removed, perform an adhesion test first.

Polyaspartic Coloured must always be applied on a dimensionally stable substrate.

## Processing conditions

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| Substrate temperature: | Minimum 10ºC, maximum +30ºC |
| Ambient temperature: | Minimum 10ºC, maximum +30ºC |
| Relative air humidity: | A maximum of 80% RH |

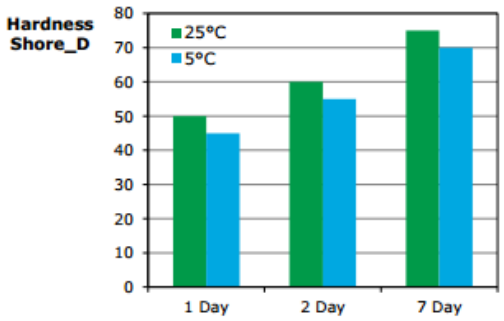
While the coating is setting, humidity must never exceed 80% RH. As the product sets, make sure sufficient fresh air enters the space to remove the excess moisture. The film will NOT dry if the air is saturated.

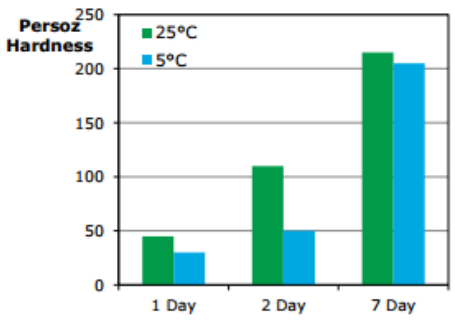
| | |
|---|---|
| Dew point: | Beware of condensation! |

The temperature of the substrate and the non-set material must be at least 3ºC higher than the dew point to prevent a risk of condensation or crystalline growth in the finish.

The higher the relative humidity (RH), the faster the product will set, but also the higher the temperature, the faster the product will set.

The table below also shows how low temperature impacts on the coating's properties. Even at low temperatures, the properties are good.




## Application

The Polyaspartic combines long pot life with fast drying.

| | |
|---|---|
| Processing time | 35 minutes @ 10ºC, 50% RH<br>25 minutes @ 20ºC, 50% RH<br>15 minutes @ 30ºC, 50% RH |
| Surface dry @ 20ºC, 50% RH | 45 minutes |
| Walk-ready @ 20ºC, 50% RH | 60 minutes |
| Capable of carrying a light load @ 20ºC, 50% RH | 2 hours |
| Fully set @ 20ºC, 50% RH | 3 hours |

Before application, check the RH and dew point.

Apply the coating using a wiper and roll it out. Dip the roller in the paint bucket and evenly apply the coating onto the surface. Roll out immediately with long strokes.

Work as quickly as you can, making sure at least that you finish before the end of the pot life, which depends on the temperature (20 minutes at 30°C - 40 minutes at 10°C).

## Notes:

Quartzline Polyaspartic must be protected against steam, condensation, and water for at least 7 days (+20°C).

Unevenness in the substrate, as well as any dirt ending up in the coating will remain visible after applying a thin sealing coat. The substrate and adjacent surfaces must be cleaned thoroughly beforehand.

Misjudging cracks and not dealing with them adequately may lead to reduced service life and recurring cracking.

If heating is required for drying, do not use gas, oil, paraffin, or other fossil fuel burners, as these produce large quantities of $CO_2$ and water vapour that could have an adverse effect on the finish. Only use electrically powered hot air ventilation systems for heating.

Do **not** use the underfloor heating system.

## Cleaning/maintenance

For long-term preservation of the floor after the finish, any spills must be cleaned up as soon as possible and the floor must be cleaned regularly using brushes, scrubber dryers, rubber wipers, pressure washers, etc. and the right cleaning products.

**Clean the floor using lukewarm water. Do not use hot water (temperature above 40°C).**

## Value base

All technical data in this product information sheet is based on laboratory tests.
Data may change, depending on the circumstances.

## Health and safety information

For information and advice on the safe handling, storage and disposal of chemical products, the user should refer to the most recent material safety data sheet, covering physical, environmental, toxicological and other safety-related data.

## Legal notice

The information and, in particular, recommendations regarding the application and end-use of Quartzline products is provided in good faith based on Quartzline's current knowledge and experience of products that have been properly stored, handled and applied, under normal conditions.

In practice, the differences in materials, substrates and actual conditions on site may be such that no warranty can be derived from this information and advice with regard to the marketability or suitability for a particular purpose, nor any liability arising from any legal relationship, based on this information or from any written recommendations or any other advice given. Quartzline reserves the right to change product properties.
The property rights of third parties must be respected. All orders are accepted subject to our current terms of sale and delivery.
Users should always refer to the most recent issue of the Material Safety Data Sheet for the relevant product. A copy of this sheet will be provided on request.