

PU Colorant

Description

Quartzline PU Colorant is a pigment concentrate paste based on organic and inorganic pigments well dispersed in a solvent free polyol.

PU Colorant can be used for solvent-free or solvent-based polyurethane products such as self-levelling floorings, trowel floorings and other coatings.

These pastes were specifically developed to be used in all the Quartzline self-levelling polyurethane systems such as the SL-PU D60, SL-PU D70, SL-PU D30, SL-PU UV, et cetera.

All 11 colour pastes are produced in-house with a powerful three roll mill and can be mixed together in any ratio to obtain a wide range of colours, including all RAL and NCS shades. Other colours can be developed on request.

The use of Quartzline PU Colorant guarantees a good colour accuracy and high colour reproducibility. Contains surfactant and dispersant, thus compatible with a wide range of base materials and hardeners.

Also available with complete database and tinting system for larger production facilities.

Name	OH-Equivalent	Density (g/cm ³)	Pigment Content
PU Colorant White	1000	1,9198	65 %
PU Colorant Black	411	1,0340	15 %
PU Colorant Oxide Yellow	700	1,5378	50 %
PU Colorant Oxide Red	700	1,4743	50 %
PU Colorant Organic Yellow	438	1,3116	20 %
PU Colorant Organic Red	500	1,3480	30 %
PU Colorant Organic Orange	584	1,3809	20 %
PU Colorant Phtalo Blue	438	1,4965	20 %
PU Colorant Phtalo Green	438	1,2518	20 %
PU Colorant Violet Blue	389	1,4764	10 %
PU Colorant Violet Red	411	1,5130	15 %

These pigment concentrates are suitable for use in automatic dispensing systems. In collaboration with Füll Dispensing Systems, Quartzline can supply a complete solution. The special volumetric VX5 dispensing system can be customized to your needs. Canister sizes can be determined based on your expected use. The Füll automatic dispensing system comes with a complete Ral and NCS colour database, computer and software package pre-installed.

This gives our customers the opportunity to buy colourless Quartzline self-levelling polyurethane systems and colour them on location. An especially interesting and advantageous proposition for Quartzline distributors.

Properties

High pigment content and colour strength, only minimal dosage is required

Almost all RAL, NCS and Sikkens colours possible

VOC-free

Low odour

Suitable for tinting systems

Density ¹ (g/cm³) See below

Usage self-levelling ² (%) 3 – 5

Usage coatings ² (%) 5 – 20

Usage solids ² (%) 1 – 5

Solid content See below

¹ = EN 12190, 14 dagen / + 23°C / 50% R.H

² = Percentage by weight. Actual quantity depending on desired colour strength, hiding power and layer thickness



Form

Coloured paste.

Packaging

1 kg, 5 kg, 10 kg and 20 kg buckets. Larger quantities on request.

Shelf life / Storage

Up to 12 months after the production date when kept in the original, sealed, unopened and undamaged packaging and stored dry between +5°C and +30°C.

Mixing

Before use, mix thoroughly

Application

Add Quartzline PU Colorant to base component whilst stirring, preferably by means of a mechanical stirrer.

Polyurethane resins cure by chemical reaction with the hardener component (isocyanates). To ensure complete curing, the correct quantity of hardener should be added to the mixture of polyurethane resin and Quartzline PU Colorant. Adding a larger quantity of Quartzline PU Colorant to a base component will require an additional quantity of hardener. An incomplete curing may result in various film defects.

The quantity of hardener may be calculated using the OH-equivalent weight (OHEW) and the hardener equivalent weight (NCO EW). The ratio between both components is correct when the total quantity of epoxy equivalents is equal to the total quantity of hardener equivalents.

The required quantity of hardener necessary for any amount of Quartzline PU Colorant can be calculated with following formula:

$$\text{QTY hardener} = \frac{\text{QTY PU Colorant} \times \text{NCO EW hardener}}{\text{OHEW PU Colorant}}$$

Whereby:

QTY hardener	Required quantity by weight of hardener;
QTY PU Colorant	The quantity by weight of Quartzline PU Colorant;
NCO EW hardener	Equivalent weight of the hardener (this value may be obtained from the supplier of the hardener)
OHEW PU Colorant	The equivalent weight of the Quartzline PU Colorant.

For example:

2000 gram Quartzline PU Colorant White is cured with a curing agent. According to the technical information, the NCO EW for the hardener is 133. The OHEW for PU Colorant White is according to the table 1000.

The quantity of hardener which should be added is: $(2000 \times 133) / 1000 = 266$ gram hardener.

When 2000 gram Quartzline PU Colorant White is added to a given quantity of polyurethane resin which will be cured with the same hardener, an additional quantity of 266 gram hardener should be added to the mixture of resins and PU Colorant to obtain proper curing.

Value base

All technical data stated in this technical data sheet is based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and safety information

For information and advice on the safety handling, storage and disposal of chemical products, users should refer to the most recent material safety data sheet containing physical, ecological, toxicological and other safety related data.

Legal notes

This information, and in particular the recommendations related to the application and end use of Quartzline products, is provided in good faith based on our current knowledge and experience of the products. It is valid for products that are correctly stored, treated and applied under normal conditions in accordance with Quartzline's recommendations.

In practice, differences in materials, substrates and actual on-site conditions are such that no warranty in respect of merchantability or of suitability for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

The user of the products must test the product's suitability for the intended application and purpose. Quartzline reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the technical data sheet for the product concerned, copies of which will be supplied on request.