AQUA_drain

# AQUA_drain technical datasheet

*Highly decorative, functional, abrasion resistant quartz sand granulate. AQUA_drain is coloured with UV stable CQE polyurethane. It is specially developed for functional and decorative purposes like gardening and wall finishings, suitable also for industrial floorings or driving ramps*

***Product description:***

*AQUA_drain is a dry, coloured quartz granulate that can be used with polymers. It is coloured in an industrial process with our high grade UV resistant CQE Polyurethane binder system, ready and easy to work with. You can scatter it on polymer binders like epoxy, PMMA or polyurethane resin systems or use it as a stone carpet porous pavement in gardens or public areas. The system is water permeable and drains it to the soil. The product combines unique UV resistance colours with excellent technical, chemical and mechanical properties. It meets the highest demands which can be expected in case of reproduction.*

*General information and description*

*For the manufacturing of our products only the high grade organic and non-organic pigments are used. This combined with the most suitable binder for your application guarantees the highest quality and best functionality.*

***Product features / benefits:***

- ***Excellent abrasion resistance***
- ***Coloured with 100% UV resistant CQE Polyurethane system***
- ***Natural colors***
- ***Highly decorative appearance***
- ***For outdoor applications***

***Applications:***

*AQUA_drain can be used as an non-skid layer on drive ways and ramps. It can be used as open stone carpet around tree pits and swimming pools. The layer can be mechanicly troweled and compressed by machine trowelling. The high quality of the final product depends on formulating of the total system, application procedures, the environment of usage and the application itself.*

*For example,*

- *Open stone carpets around tree pits, garden walkways, parks and swimming pools.*
- *Wheelchair friendly walkways in cemetaries and drive- or walkways to buildings.*
- *Suitable as a non-skid layer for driving ramps and park decks.*
- *Suitable for use with Epoxy, PMMA, acrylic and Polyurethane binders.*

AQUA_drain

## Product data:

| | |
|---|---|
| **Name:** | -AQUA_drain |
| **EINECS-nr.:** | -238-878-4 |
| **Hs code:** | -25.05.10 |
| **CAS-nr.:** | -14808-60-7 |
| **Colours:** | - standard color collection with 7 traditional monocolours.<br>AQD_YEBH Yellow Beach, AQD_GEOL Green Olive, AQD_GRCC Grey Concrete, AQD_BRDE Brown Deer, AQD_BEIG Beige, AQD_REBE Red Beige, AQD_GRQR Grey Quartz, AQD_NLHT light<br>See colourcard for available colours<br>Other colours are available on request. |
| **Packing:** | -25 kg Polyethylen PE ventile bag on one-way pallet wrapped with stretch foil<br>-1000 / 1250 kg one way big bags |
| **Storage conditions:** | -Storage in the original sealed bags in dry place. Long-term exposure to sunlight will damage the packing |

## Pictures:



## Technical data:

| | |
|---|---|
| CQE, the two components polyurethane colouring system that is fully UV stable and has aexcellent resistance against abrasive loads. It has much better specifications than for example epoxy coated sands. It is suitable for use in industrial floorings, acrylic wall finishings and decorative sands. Everywhere, also where normally later not a topcoat will be applied and heavy loads are. | |
| UV stability of our polyurethane color coating when applied on the granulate is full.<br>UV stability is tested. Compared are our polymer system to reference products that are based on Polyurethane and Epoxy. Executed test was an 168 hour UV test with wave length 313 Nm. Special datasheet for these test results is available on request. | |
| Polyurethane systems CQE / CQS and CfQS<br>UV non lighted ΔE=<br>UV lighted ΔE= | <br>7,47<br>13,61 |
| UV stability of used pigments<br>AQUA_drain colour collection is specially developed for outdoor applications. The pigments used have full UV stability and atmospheric conditions resistance. It can be also used in indoor applications. | |

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## Technical data:

| **Technical specifications:** | |
|---|---|
| Hardness (Mohs) | 7 |
| Chemical content of Granulation, this analysis is a average guideline. It is taken from the CfQS 0,5-1,0 mm sand, other granulations can have slightly different values. | $SiO^2$ : 96,88%<br>$AL^2O^3$ : 1,928%<br>$Fe^2O^3$ : 0,0975%<br>$TiO^2$ : 0,01242%<br>CaO : 0,0521%<br>MgO : <0,10%<br>MnO : 0,00254%<br>$K^2O$ : 0,892%<br>$Na^2O$ : <40%<br>$So^3$ : <0,020% |
| Moisture | < 0,1 % |
| Bulk density | 1,55 kg/$dm^3$ |
| Density | 2,65 g/$cm^3$(DIN ISO 787/10A) |
| Sieve Curve | CQE 2,0-3,0 mm<br>CQE 2,0-4,0 mm<br>CQE 3,0-5,0 mm<br>CQE 4,0-6,0 mm<br>CQE 5,0-8,0 mm |
| Maximum deviation of the sieving curve | 15.00% |
| Polish Value (PSV) DIN EN 1097-8 | PSV practical av. 47 / Category by norm PSV =47 |
| Frost resistance value | F1 |
| Picture of natural product |  |

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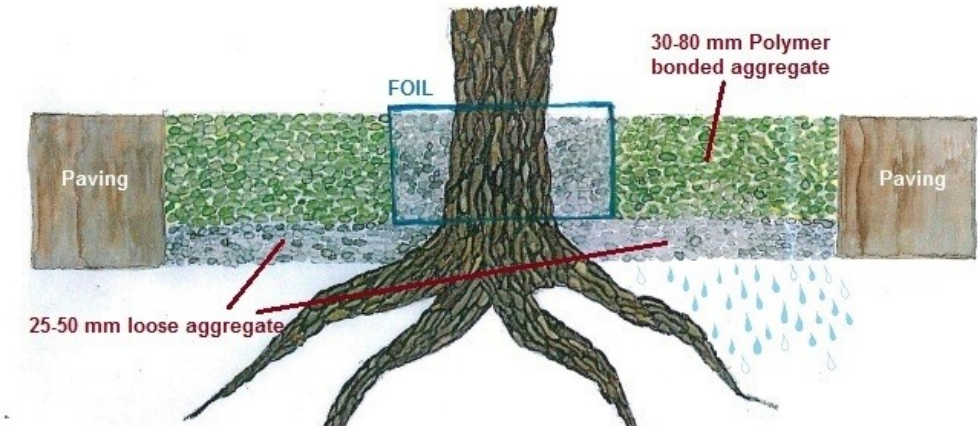
## *System and installation guidelines:*

*AQUA_drain can be used everywhere where rainwater has to be drained to soil. As an example for the systems we used a treepit*

*The strenght of the systems is depending on the amount of added polymer we advice 5-9% of mixture. The layer thickness of the system can be defined as following*

- *layer till 25 mm just decorative, NO TRAFFIC*
- *layer till 50 mm light FOOT TRAFFIC*
- *layer from 75 mm Heavy FOOTRAFFIC and Bycicle traffic*




*The foil, is an optional protective tree collar. Between the foil and tree can be used loose gravel or gravel with an increased amount of polymer binder.*
*Also can be added a horizontal PE or PVC perforated inlay to gain additional strenght and stability when used for paths.*

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## *Standard Colors AQUA_drain collection:*

| | | |
|---|---|---|
|  *AQD_YEBH Yellow Beach 3-5 mm* |  *AQD_GEOL Green Olive 3-5 mm* |  *AQD_GRCC Grey Concrete 2-4 mm* |
|  *AQD_BRDE Brown Deer 3-5 mm* |  *AQD_BEIG Beige 3-5 mm* |  *QD_REBE Red Beige 3-5 mm* |
|  *AQD_GRQR Grey Quartz 3-5 mm* | | *AQD_NLHT Sun light 3-5 mm* |

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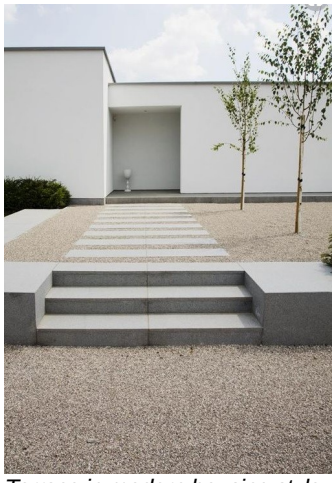
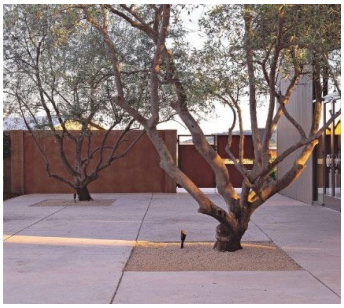


Terrace in modern housing style

Cemetary

Walkways in parc

Walkway near flooded area



Tree pits

Walkpath near river

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***LIABILITY:***

*All information, guidelines and prices are based on the current, actual state. Changes can be made without prior notice. Since environmental factors are constantly changing, we cannot accept any liability in these cases. Before application you should establish whether or not our products are suitable for desired application and will meet expected requirements. Due to the natural source of the raw materials, slight differences may appear in the colours. These differences may also appear between batches and sample materials .*

*Producer: hm-ppw / Merkury Sp. z o.o.*
*POLAND, 68-200 Żary, ul. Slowackiego 4*
*tel. +48 (68) 363 02 50 fax +48 (68) 363 02 53*
*e-mail sales@quartz.nazwa.pl*