

TECHNICAL DATA

MONOCONFALT®

SEMI-FLEXIBLE CONCRETE



DESCRIPTION

MonoConfalt is an integrated semi-flexible material consisting of bituminous coated aggregates mixed with MonoConfalt High Performance Concrete. Forces from MonoConfalt high strength concrete are obtained by the flexible bitumen layer around the sand and aggregates which allows joint free flooring and pavement installations.

As a building material in general MonoConfalt offers a compressive strength compatible with a good quality concrete and yet a low E-module of 7,000-14,000 Mpa. Bending tensile properties remarkably higher than those of good quality concrete can be achieved by combining reinforcement. The binders in MonoConfalt is of HPC quality which fully utilize any fibre or mesh reinforcements.

USES

MonoConfalt is designed to be a building material with second to none shrinkage properties.

MonoConfalt is used as a joint-free topping in warehouses, factory floors, architectural design buildings or industrial surfaces where traditional asphalt or concrete present problems. Key purposes are also pot hole repair system, pavement for roads, airports, harbours, bridges and other areas with heavy mechanical loads and/or aggressive spills like oil, grease etc.

PRODUCTION OF AGGREGATES

MonoConfalt sand and aggregates are produced in accordance with Contec specifications and only by the written licence agreement with Contec ApS.

MIXING

MonoConfalt is delivered as a ready mix or in 3 components depending on the application. As ready mix only water is added and mixing should be carried out in paddle pan mixer or continuous flow mixer (typically attached to silo).

3 component delivered MonoConfalt material is mixed in paddle pan mixers. Preferred as mobile mixing plant or local concrete mixing plant. Concrete trucks are also suitable.

HEALTH AND SAFETY

MonoConfalt cementitious systems are non-toxic and safe to use. However powder in contact with water or moisture produces a strong alkaline solution. Protective gloves, clothing and a dust mask must be worn during placing.

PROPERTIES

MonoConfalt combines the strength of cement-based materials with the flexibility of asphalt. The bitumen surrounding the aggregate in the system establish the flexibility whilst MonoConfalt mortar provides the strength and stability. The high density of the MonoConfalt mortar ensures low permeability and very high wear resistance and durability. MonoConfalt is resistant to a number of chemicals, steam and high pressure water cleaning as well as repeated freeze-thaw cycles.

APPLICATION

The MonoConfalt system can be applied to almost any type of new or existing base, from cement stabilised gravel to asphalt, concrete and steel. Moving joints in outdoor concrete plates must be accepted in the MonoConfalt topping, whilst MonoConfalt on asphalt or cement stabilised gravel is joint free. The MonoConfalt system is normally applied in a thickness from 30-40 mm, but can be applied up to 200-mm thickness.

The MonoConfalt mortar must be compacted/levelled by vibration beam, laser guided screed layers or by road concrete pavers. Surface finishing depends on desired result. For very smooth and glossy surfaces power floating is necessary. Once with plate and twice with wings. Please notice our application instructions.

Sand saturation is optional for road pavements and pot hole repairs.

APPEARANCE

As with all cementitious materials the final colour of MonoConfalt mortar is affected by weather and drying conditions, particularly when surface curing compounds are used.

COLOURS

The natural colour of MonoConfalt mortar is bright cement-grey. Colouring with traditional oxide colours for cement is possible.



CLEANING

Tools and equipment must be cleaned with water before setting of the MonoConfalt material commences.

STORAGE

Bags of MonoConfalt powder should be stored on pallets in dry conditions. Under these conditions the shelf life is 6 months. MonoConfalt sand and aggregates must be stored in dry environment.

CONSUMPTION

The consumption of ready mixed MonoConfalt mortar is approximately 25 kg/m²/cm corresponding approximately 10 litres.

PACKAGING

MonoConfalt Binder is supplied in big-bags on pallets of 1.000 kg, net weight. Larger quantities are delivered in bulk trucks.

TECHNICAL DATA: The following physical properties are average values and should be regarded as such. All properties are at 20°C.

MonoConfalt	24 hours	3 days	28 days
Compressive strength at 20°C:	15 N/mm ²	25 N/mm ²	40 N/mm ²
Flexural strength at 20°C:	4 N/mm ²	5 N/mm ²	6 N/mm ²
Wear Resistance (EN 13892-3)			<12 cm ³ /50 cm ²
Shrinkage properties (longitudinal) (DIN 52540)			0,07 %
Shrinkage properties (transversal) (DIN 52540)			0,07 %

* measured on concrete. Same values with or without primer

Bonding strength (EN 13892-8) *	2.0 N/mm ²
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Conformity certificate on EN13813

MonoConfalt Properties	Classification to EN 13813
Compressive strength	Class C40
Bending Tensile Strength	Class F6
Wear Resistance (Böhme EN 13892-3)	Class A12
Bonding Strength	Class B1.5

TECHNICAL ASSISTANCE: For further technical assistance as well as formulations of asphalt mixes please contact your local Confalt agent or our office.

ADDITIONAL INFORMATION: All technical information contained in our literature or otherwise transmitted, is given in good faith, based on test data and experience. Whilst normal handling and application techniques associated with cementitious materials should be observed, we are pleased to give advice on particular applications and site conditions. However we can not be responsible for any loss or damage arising from individual site conditions or methods of application beyond our control.