

# DS-252 FLEX



## Flexible microcement for walls and floors



### ■ PROPERTIES

Ready-made, white or colored flexible cement mortar. Its fiber-reinforced composition contains high-strength cement, suitably graded aggregates, special active additives and top-quality resins that give flexibility, unbreakable adhesion to the substrate, very good workability, high abrasion resistance and a high mechanical finish. It successfully reacts to contractions and expansions of the surfaces without cracking, meanwhile remains unaffected by micro-vibrations, while withstanding rapid temperature changes and adverse environmental conditions. Industrially perfected, DS-252 FLEX of DUROSTICK is the evolution of microcement **that does not require any improving additives**. Creates perfectly finished surfaces, in houses with style as well as commercial spaces. It is colored in its mass (\*) by the addition of water-soluble pigments in the form of powder DUROCOLOR

POWDER-C 96 shades or by broadcasting pigments on its surface. Create unique, personalized styles on the surface by using the cementitious GROUTS of DUROSTICK, available in 38 colors or the color syringes of DUROCOLOR coloring system of DUROSTICK.

Classified PCC R3 per EN 1504-3 and CT-C30-F7-AR2, as floor screed material, per EN 13813.

The product has received an Environmental Product Declaration (EPD) following an assessment of the environmental impact of its life cycle.

Registration number: S-P-13767,  
The International EPD® System.

### ■ APPLICATIONS

DS-252 FLEX is suitable to be used on floors and walls, on interior and exterior surfaces of concrete, plaster, as well as lightweight constructions with gypsum boards which are primed with SOLVENT

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BASED PRIMER or AQUAFIX of DUROSTICK and cement boards, following their proper preparation. Its great flexibility allows for flawless installations in more demanding applications, where until now the application of microcement was not possible. Floors with radiant heating systems, walls and floors subjected to vibrations, attics and lofts, floors made with marine grade plywood or thoroughly cleaned sheet metal, after being primed with quartz primer DS-260 or DS-255 of DUROSTICK, terraces and balconies exposed to extreme weather conditions are some of the applications that DS-252 FLEX can successfully address. Its flexibility together with its bonding strength allows for the further expansion of its application range, far beyond the usual. That's why it is the decorative solution for new constructions as well as renovations and/or remodeling of spaces. Existing cement screeds, mosaics, and weathered tiles etc. after their proper preparation, can be coated over and be brought back to life.

### ■ USE

#### Surface preparation

The substrate must be sound and well soaked, free from dust, oils, and all loose materials. It is necessary to create expansion joints on all exterior floor applications, every 25-30m<sup>2</sup> and every 50m<sup>2</sup> for interior ones. It is also necessary to create perimeter expansion joints, 8-10mm wide on all floor applications.

#### Application

Cover all surrounding surfaces to protect them from unnecessary stains. Mix 25kg of microcement (1 bag) into 5.0lt of clean, cool water and stir by using a cement mixer or a low-rpm drill, until a lump-free, cohesive, homogeneous paste is created. Allow for the mixture to mature for 5-10 minutes and stir periodically. Soak with clean water the substrate that will be immediately coated with the product. 'Comb' the product on the surface using a wide, stainless notched trowel to a thickness of 5-10mm per coat. On floor applications and especially those on commercial floor spaces subjected to heavy foot traffic or surfaces subjected to vibrations (lofts etc.),

encase the fiberglass mesh, DS-4160 of DUROSTICK (mesh opening 4x4mm and weight 160gr/m<sup>2</sup>) onto the 'combed' surface with the wide side of the notched trowel. Press the material to eliminate any trapped air bubbles so they do not create holes on the surface. Approximately 1-1.5 hour later, and once the product sets, lay polystyrene boards on the surface to protect it from the shoes and the knees of the craftsman. Using a spray bottle wet the surface lightly and smooth it out, using a foam float. Use a gauging trowel to 'press' the cement screed to create the 'pressed' effect look. Use a wide, straight-edge trowel to smooth and perfect the entire surface. After 4 to 8 days (depending on the ambient conditions) and once the product has cured and thoroughly dried, it is time to enhance its surface protection. For interior vertical surfaces use the matte finish varnish DECOFIN AQUA of DUROSTICK. For interior and exterior surfaces, the use of the acrylic, solvent-based varnish VISTA is recommended. On floor surfaces and areas with increased mechanical stresses, the use of the two-component, polyurethane based varnish DECOFIN POLYURETHANE or the two-component water soluble polyurethane-based matte varnish, DECOFIN AQUA PU, (since it is odorless, it is ideal for interior spaces that are not adequately ventilated), are both highly recommended. For interior surfaces with increased hygiene requirements, the use of either the two-component, epoxy-based and gloss finish varnish DECOFIN EPOXY SF or the two-component, epoxy based and satin finish DECOFIN EPOXY AQUA are both highly recommended as well. To maintain and protect the selected color and not alter/darken it from the varnish application, it is recommended to apply the micromolar primer AQUAFIX of DUROSTICK, before applying the protection varnish.

#### (\*) Coloring the microcement throughout

**its mass using DUROCOLOR POWDER-C:** Select one of the 96 color chart colors. Empty the required amount of pigments into a clean container with 5.0lt of clean, potable water. Mix well using a low-rpm drill. Add the white microcement and continue to mix until a fully homogenized colored mixture is created.

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### ■ USEFUL TIPS - NOTES

- Should not be applied when ambient temperatures are lower than 5°C and higher than 35°C.
- During the summer months, the top surface has to be protected from intense sunlight. For the next 24 hours after the application of the product, soak the top surface once or twice, as needed to avoid premature dehydration.
- Clean the microcement surface with mild household cleaning detergents. Cleaning can be significantly facilitated when the surface is protected with one of the special varnishes of DUROSTICK.
- To be 'closer' in terms of the aesthetic result and the degree of influence of its shade by the application of its protection varnish, you can consult the MICROCEMENT FAN DECK that is located in stores that sell the specific products.
- Curing times refer to ambient conditions with a temperature of 23°C and 50% relative humidity. Those times also depend on the nature of the substrate and the thickness of the microcement coat.
- Applications where the levels of humidity are elevated and the temperature remains low, the varnish application should be done after 7 days
- Quantities over 250kg that can line approximately 35m<sup>2</sup> can be delivered factory colored.

### ■ CLEANING

Clean all tools with water, immediately after use.

### ■ CONSUMPTION

7kg/m<sup>2</sup> per 5mm thick coat.

### ■ STORAGE

Store in the factory sealed packages, in dry and shaded places, for 12 months from production date.

### Color chart of 12 colours

WHITE	ICE	LIGHT GRAY
DARK GRAY	CARBON	CHESTNUT
OAK TREE	MOCHA	ALABASTER
PISTACHIO	SUN RAY	AQUA MARINE

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TECHNICAL SPECIFICATIONS (Measurement conditions 20°C and 50% R.H.)	
■ Form - Color	Cementitious mortar - White
■ Colors	11 colors and another 96 selected, based on DUROCOLOR POWDE-C color chart
■ Bulk density of dry mortar	1.35±0.05kg/lt
■ Bulk density of fresh mortar	1.80±0.05kg/lt
■ Maximum grain size	1.3mm
■ Water requirement	5.0lt water in 25kg mortar
■ Application temperature	From +5°C to +35°C
■ Temperature resistance	From -35°C to +90°C
■ Pot life	2 hours
■ Maximum application thickness	5-10mm/layer on floor, 2-3mm/layer on wall
■ Application of protective paint or waterproofing	After 4 to 8 days
■ Foot traffic	After 8 hours
■ Scrubbing with an electric sander	After 24 hours (if necessary or desired).
■ Resistance to:	
• Ageing	Excellent
• Acids	Excellent (if pH > 3)
• Alkalies	Excellent

PRODUCT PERFORMANCES	
■ Strength after 28 days, per EN 12190 & EN 13892-2, to:	
• Flexion	≥ 7,00 N/mm <sup>2</sup>
• Compression	≥ 30,00 N/mm <sup>2</sup>
■ Chloride ion content per EN 1015-17	≤ 0,05%
■ Adhesive bond per EN 1542	≥ 1,90 N/mm <sup>2</sup>
■ Elastic modulus per EN 13412	≥ 15,0 GPa
■ Thermal compatibility expressed as adhesion to concrete, per EN 13687, after:	
• 50 freeze-thaw cycles, • 30 Storm cycles, • 30 Dry heat cycles	≥ 1.90 N/mm <sup>2</sup>
■ Capillary absorption per EN 13057	$w \leq 0.15 \text{ kg} \cdot \text{m}^{-2} \cdot \text{h}^{-0.5}$
■ Wear resistance BCA per EN 13892-4	190±20µm
■ Reaction to fire	Class F

NOTE: 1N/mm<sup>2</sup>=1MPa

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