



FOR INDUSTRIAL USE ONLY

PRODUCT FEATURES:

Reflective glass microspheres are an integral part of state-of-the-art techniques of horizontal markings of roads and constitute their reflective properties. The reflective microspheres are embedded in the dried surface of horizontal marking. Arranged in such a way, they operate as miniature lens that focus the light from the headlights of oncoming vehicles, reflect its part backwards to the driver.

The use of glass microspheres considerably improve the road safety at night.

PPG Polifarb Cieszyn S.A. sells glass microspheres in treatment [H] and [T] of grain-size:

- glass microspheres 100-600 μm
- glass microspheres 125-630 μm
- glass microspheres 125-850 μm
- glass microspheres 400-840 μm

* Symbol H means silicone treatment preventing microspheres against aggregation, neutral for paints.

* Symbol T means silane treatment improving adhesion of microspheres in the paint.

THE USE:

Microspheres are designed to be spread directly on freshly made horizontal marks on road pavements to provide the visibility of markings at night. Microspheres can be used for both thin-layer markings made by using paints and thick-layer ones made with the use of thermoplastics and two-component chemohardenable masses. During the selection of suitable grain-size of microspheres for the individual types of paints, thermoplasts and chemohardened masses, it should be guided by the recommendations of suppliers of these materials that are given in technical information.

THE METHOD OF APPLICATION:

Microspheres shall be applied under pressure on horizontal markings, which provides their better sinking in the marking material layer in time not longer than 1-3 seconds after painting. Air pressure while spraying micro-spheres shall be adjusted individually for the used painting machine a given material to make markings. It should provide optimal plunging of spheres giving suitable reflectiveness throughout the entire operational life of the markings. The choice of grain-size shall be selected according to a type of used material for horizontal road markings and a thickness of the applied layer as per the guidelines of the manufacturer of this material. For paints, 200g to 300 g of microspheres is applied as a standard per m^2 . Micro-spheres shall be applied only with the materials for horizontal road markings designed for make reflective marks. Moist or micro-spheres should not be used.

TEST OF MARKING REFLECTIVENESS:

The test of marking reflectiveness shall be made with an instrument (reflectometer) to measure a surface reflection coefficient. For the materials to make horizontal (thin- and thick-layer) road marks, the reflection coefficient should be $> 100 \text{ mcd m}^{-2} \text{ lx}^{-1}$. Required is also the assessment of distribution and sinking depth of microspheres with the use of magnifying glass. The distribution of microspheres should be uniform and should provide even covering of the marking. As it results from many years' experience, the immersion of microspheres at the level of 55 – 65% of their height will ensure an optimum reflectiveness of the marking during its entire operational life time.



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STORAGE AND TRANSPORTATION:

Glass microspheres shall be stored in their original packages, in roofs areas, secured against the effect of water and moist.
The packages with microspheres shall be transported by means of transport that protect them against wetting and mechanical damage.

HEALTH & SAFETY INFORMATION:

While applying microspheres on the road, protect the packages against accidental spillage. The excess of loosen microspheres may be hazardous for road traffic.

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| <p>PPG Polifarb Cieszyn S.A. Cieszyn, POLAND Tel: +48 33 851 71 00 Fax: +48 33 852 24 93</p> | <p>PPG Coatings Deutschland GmbH Bochum, GERMANY Tel: +49 234 8690</p> | <p>PPG Industries France S.A Saultain, FRANCE Tel: +33 3 27 14 97 00 Fax: +33 3 27 14 98 94</p> | <p>PPG Industries Italia Spa Quattordio, ITALY Tel: + 39 131 7701 Fax: +39 131 773 753</p> | <p>PPG Industries Sales, inc Istanbul, TURKEY Tel: +90 212 286 2150 Fax: +90 212 286 21 59</p> |
| <p>PPG Industrial Coatings B.V. Veenendaal, NETHERLANDS Tel.: +31 318 567 800</p> | <p>PPG Iberica S.A Rubi (Barcelona), SPAIN Tel: +34 93 586 7429 Fax: +34 93 586 7430</p> | <p>PPG Dr. A. Schoch AG (Ltd.) Burgdorf, SWITZERLAND Tel: +41 421 42 42 Fax: +41 421 42 99</p> | <p>PPG Industries (UK) Ltd Birmingham, UK Tel.: +44 121 423 7345 Fax: +44 121 423 7303</p> | |
| <p>PPG WEB SITES: www.ppg.com & www.ppgindustrialcoatings.com</p> | | | | |