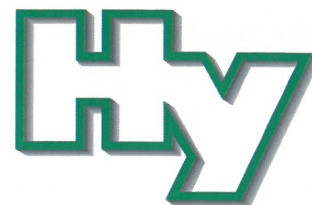


Hygiene-Institut des Ruhrgebiets

Institut für Umwelthygiene und Toxikologie

Direktor: Prof. Dr. rer. nat. L. Dunemann

Träger: Verein zur Bekämpfung der Volkskrankheiten im Ruhrkohlengebiet e.V.



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Reference-No.: **K-305304-18-Ko**
Contact person: Dr. Andreas Koch
Prolongation: K-237164-13-Ko

Gelsenkirchen, 12.11.2018

TEST CERTIFICATE

according to the Draft evaluation criteria for
enamels and ceramic materials
(issue date 21.07.2016)

Product: DIARC Diamond, DIARC Miclub, Balinit Milubia

Test specimen: coated steel plates; dimension: 100 mm x 100 mm x 1 mm, black
(manufacturer's information)

The above mentioned product was tested according to the Draft evaluation criteria for enamels and ceramic materials in contact with drinking water of the German Environment Agency. Pursuant to the test report-no.: **K-305304-18-Ko dated 12.11.2018 and K-237164-13-Ko dated 28.11.2018** the product meets the requirements for the product group:

Ancillaries for Tubes with DN < 80 mm in contact with cold water (23 °C) and hot water (85 °C).

All product groups for which the requirements are met are summarised on the back side.

This test certificate is valid beginning with the date of issue and is ending by **28.11.2023**.

The Director of the Hygiene-Institute
on behalf of

Dr. rer. nat. Andreas Koch
Head of the Dept. for water
hygienic material testing



The assessment was based on the assumption that the used starting substances and monomers used to manufacture the product may completely known and no other substances are present in the product. The validity of this document expires in case of modifications in the composition of the product or the processing conditions. The results and evaluations refer to the groups of test items. This document may not be published without our written permission only complete and unchanged or duplicated.

Träger: Verein zur Bekämpfung der Volkskrankheiten im Ruhrkohlengebiet e.V., Vereinsregister: VR 519 Amtsgericht Gelsenkirchen, USt-ID: DE125018356
Vorstand: Prof. Dr. Werner Schlake (Vors.), Prof. Dr. Jürgen Kretschmann, Dr. Emanuel Grün, Dr. Dirk Waider, Prof. Dr. Lothar Dunemann (geschäftsf. Vorstand)

The mentioned product meets the requirements according to the test report-no.: **K-305304-18-Ko dated 12.11.2018** and **K-237164-13-Ko dated 28.11.2018** for the following product group(s) and temperature(s), as far as technically suited.

Product group	cold water (23°C)	warm water (60°C)	hot water (85°C)
Tubes with DN < 80 mm (domestic distribution)			
Tubes with 80 mm ≤ DN < 300 mm (supply pipes)			
Tubes with DN ≥ 300 mm (main pipes)			
Ancillaries for Tubes with DN < 80 mm	passed		passed
Ancillaries for Tubes with 80 mm ≤ DN < 300 mm	passed		passed
Ancillaries for Tubes with DN ≥ 300 mm	passed		passed
Parts of ancillaries that in total do not make up more than 10 % of the total surface that comes into contact with the water for Tubes with DN < 80 mm	passed		passed
Parts of ancillaries that in total do not make up more than 10 % of the total surface that comes into contact with the water for Tubes with 80 mm ≤ DN < 300 mm	passed		passed
Parts of ancillaries that in total do not make up more than 10 % of the total surface that comes into contact with the water for Tubes with DN ≥ 300 mm	passed		passed
Small contact area components of materials for ancillaries with DN < 80 mm that are only installed in one place in the distribution system (e.g. plain bearing of a pump)	passed		passed
Small contact area components of materials for ancillaries with 80 mm ≤ DN < 300 mm, that are only installed in one place in the distribution system (e.g. plain bearing of a pump)	passed		passed
Small contact area components of materials for ancillaries with DN ≥ 300 mm, that are only installed in one place in the distribution system (e.g. plain bearing of a pump)	passed		passed
Tanks in domestic installations including repair systems	passed		passed
Tanks outside the drinking water installation including repair systems	passed		passed

If further products or components with the same formulation are produced with the same process at one production site and differ only in geometry, this test certificate applies to further parts of this product range.