

TEST REPORT

for assessment according to the "Evaluation criteria for plastics and other organic materials in contact with drinking water (KTW-BWGL)" / annex D of German Environment Agency (UBA),
Status: 07.03.2022

Product: Flat gaskets made of KLINGERSIL® C-4400
Material: Flat gasket quality
Product group: Small ancillary components (P3) for pipes with ID < 80 mm
Temperature range: Cold water (23 °C ± 2 °C) and hot water (85 °C ± 2 °C)
Name and address of client: Rich. Klinger Dichtungstechnik GmbH & Co. KG,
GUMPOLDSKIRCHEN, AUSTRIA
Order date: 14.04.2023
Reference Number: 5-0863/23
Type of test: Type test
Test period: 22.05.2023 - 04.07.2023

In accordance with chapters 5 and 6 the following results were obtained:

6.1 Formulation assessment:

Formulation was not provided

TZW Ref. No. of the formulation: -----

Formulation requirements not necessary

6.2 Requirements for test samples:

Type of test sample: Test plates

Sample number:: S0629-23

Production process: calendering

Date and place of manufacture: Date: not specified. Place: Rich. Klinger Dichtungstechnik GmbH & Co. KG, GUMPOLDSKIRCHEN, AUSTRIA

Date of sampling: Not specified

Samples taken by: Client

Receipt of the samples: 19.04.2023

Storage conditions before test- Dry, ambient temperature, without interference of light

Material fingerprint: FTIR-ATR spectrum recorded

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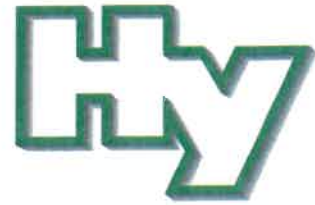
Publication of the test report – in full or in excerpts - is not permitted without the express permission of the test centre.

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-284796-17-Bs/st
Contact person: Anasse Bernoussi (Eng.)
Translation: K-284795-17-Bs/st

Gelsenkirchen, 16.05.2017

TEST CERTIFICATE according to the transitional regulation of the Elastomer-Guideline

Product: KLINGERSIL® C-4400
Specimen: plates 200 mm x 200 mm x 2.0 mm (green)

The above mentioned product was tested according to the Guideline on the hygienic assessment of elastomers in contact with drinking water of the German Environment Agency. Pursuant to the test report-no.: **K-244302-14-Ko** dated **12.06.2014** and **K-284795-17-Bs/st** dated **16.05.2017** the product meets the requirements for the product group:

Seals for pipes 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.

The certificate is valid providing that the requirements, laid down in the Guideline regarding the testing of the microbial growth are fulfilled. This can be verified for the product f.e. with a valid test certificate according to the DVGW technical rule W 270.

This test certificate is valid beginning with the date of issue and is ending by **12.06.2019** as far as there are no changes in the formula. After this time it can be extended if demanded, but only with maximum validity until **31.12.2021**.

The Director of the Hygiene-Institute
on behalf of

Claudia Karau
Food Chemist
Substitutional 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, Volker Vohmann, Prof. Dr. Lothar Dunemann (geschäftsf. Vorstand)

The mentioned product meets the requirements according to the test report-no.: **K-244302-14-Ko** dated **12.06.2014** and **K-284795-17-Bs/st** dated **16.05.2017** 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)
Pipes with DN < 80 mm (service and domestic pipes)			
Pipes with 80 mm ≤ DN < 300 mm (distribution pipes)			
Pipes with DN ≥ 300 mm (large distribution, mains)			
Fittings for pipes with DN < 80 mm			
Fittings for pipes with 80 mm ≤ DN < 300 mm			
Fittings for pipes with DN ≥ 300 mm			
Seals for pipes with DN < 80 mm	passed		passed
Seals for pipes with 80 mm ≤ DN < 300 mm	passed		passed
Seals for pipes with DN ≥ 300 mm	passed		passed
Containers in the drinking water installation including repair systems			
Containers outside the drinking water installation including repair systems			
Repair systems for containers in the drinking water installation with 1/100 of the surface area of the container	passed		passed
Repair systems for containers outside the drinking water installation with 1/100 of the surface area of the container	passed		passed
Small contact area components of materials for pipes 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 pipes 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 pipes with DN ≥ 300 mm, that are only installed in one place in the distribution system (e.g. plain bearing of a pump)	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.