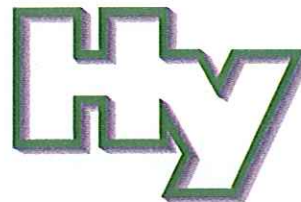


# Hygiene-Institut des Ruhrgebiets

Institut für Umwelthygiene und Toxikologie

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

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



HYGIENE-INSTITUT · Postfach 10 12 55 · 45812 Gelsenkirchen / GERMANY

Gulf Plastic and Converting Industries (Tahweel)

RAKtherm, Al-Jazira Al-Hamra

30739 RAS AL-KHAIMAH

UNITED ARAB EMIRATES

Visitor's/Parcel Address:  
Rotthauer Str. 21  
45879 Gelsenkirchen

Telephone +49 (0) 209 9242-0  
Extension +49 (0) 209 9242-351  
Telefax +49 (0) 209 9242-212  
E-Mail a.bernoussi@hyg.de  
Internet www.hyg.de

Reference-No.: K-261595-15-Bs/st  
Contact person: Anasse Bernoussi (Eng.)

Gelsenkirchen, 17.09.2015

## TEST CERTIFICATE according to the KTW-Guideline

**Product:** Drinking water installation, group 1 Pipe made of polypropylene PP-R  
SKZ-No. 4314, certification-No. DW-8317BS0309

**Specimen:** pipe samples Ø 25 x 4,2 mm green

**Kind of test:**  Supervision test 2015 (initial test according to the KTW-Guideline: 22.07.2010)

The test specimen meets the requirements according to the test report no.: K-261595-15-Bs/st dated 17.09.2015 for the following applications and temperatures, as far as technically suited.

Applications:	cold water (23°C)	warm water (60°C)	hot water (85°C)
Pipes with DN < 80 mm (domestic distribution)	passed	passed	---
Pipes of diameter 80 mm ≤ DN < 300 mm (supply pipes)	passed	passed	---
Pipes of diameter DN ≥ 300 mm (main pipes)	passed	passed	---
Fittings for pipes with DN < 80 mm	passed	passed	---
Fittings for pipes with 80 mm ≤ DN < 300 mm	passed	passed	---
Fittings for pipes with DN ≥ 300 mm	passed	passed	---
Sealings for pipes with DN < 80 mm	passed	passed	---
Sealings for pipes with 80 mm ≤ DN < 300 mm	passed	passed	---
Sealings for pipes with DN ≥ 300 mm	passed	passed	---
Tanks in the domestic installations including repair systems	passed	passed	---
Tanks other than in domestic installations including repair systems	passed	passed	---

If pipes, sealings or fittings and ancillaries do not differ in their material composition and process of manufacture, testing of the smallest diameter of the product range is sufficient.

This test certificate is valid beginning with the date of issue and is ending by **22.07.2020** as far as there are no changes in the formula.

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.

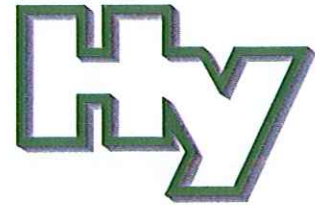


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Gulf Plastic & Converting Industries  
(TAHWEEL)  
Raktherm  
P.O. Box 30739  
AL-JAZIRA AL-HAMRA  
30739 RAS AL-KHAIMA  
UNITED ARAB EMIRATES

Visitors/ postal address:  
Rotthäuser Str. 21, 45879 Gelsenkirchen,  
Germany

Switchboard (0049209) 9242-0  
Phone (0049209) 9242-230  
Fax (0049209) 9242-222  
E-Mail c.schell@hyg.de  
Internet www.hyg.de

Reference: W-261582e-15-SI/le  
Before: W-189189ke-10-SI  
Contact person: Mrs. Dr. Ch. Schell

Gelsenkirchen, 17.09.2015

## TEST CERTIFICATE (Prolongation of test certificate W-189189ke-10-SI)

Enhancement of Microbial Growth on Materials to Come into Contact with Drinking water  
Test pursuant to DVGW Technical Standard W 270, November 2007

**Client:** Gulf Plastic & Converting Industries  
(TAHWEEL)  
Raktherm  
P.O. Box 30739  
AL-JAZIRA AL-HAMRA  
30739 RAS AL-KHAIMA  
UNITED ARAB EMIRATES

**Test material:** TOPILENE R200P

**Test method:** Material test

According to test report **W-189189ke-10-SI** of **19.04.2010**, the material **TOPILENE R200P** is conform to the requirements for the use in the area of drinking water systems pursuant to DVGW Technical Standard W 270. Details regarding testing procedure and test results are itemized in the test report.

This test certificate is valid from the date of issue and, given that the conditions and requirements remain unaltered, expires on **19.04.2020**.

The Director of the Institute  
p.p.

  
Dr. Ch. Schell  
Head of Laboratory  
Department of Water Hygiene and Environmental Microbiology

The test results and assessments refer exclusively to the examined test specimens and all applicable statutory regulations. The validity of the document expires in case of modifications in the composition of the material or the processing conditions. This present document may only be published and reproduced unabridged and unaltered. This document is no DVGW certification.



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 (geschäftsführ. Vorstand)