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# Technical Rule - Standard

## **DVGW G 472 (A)** March 2020

**Gas Pipework made of Plastic Pipes for an Operating Pressure up to and including 16 bar; Installation**

Gasleitungen aus Kunststoffrohren bis 16 bar Betriebsdruck; Errichtung

GAS

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# Gas Pipework made of Plastic Pipes for an Operating Pressure up to and including 16 bar; Installation

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## Foreword

The requirements on pipelines and installations for the public supply of gas have been harmonised by the functional standards set by the CEN/TC 234 Technical Committee on “Gas Infrastructure”. This European Technical Standardisation Committee is responsible for elaborating the harmonised, fundamental gas supply system requirements that apply throughout Europe.

The European standardisation activities of the CEN/TC 234 necessitated the technical and editorial revision of the national set of gas supply rules, with the objective being to eradicate contradictions and harmonise them with the requirements of the European standards and the formally amended framework conditions, ensuring at the same time that the application of the DVGW Set of Rules will also meet the requirements of the European standards that regulate the distribution of gas.

The revision is based on DIN EN 12007-1, DIN EN 12007-2 and DIN EN 12327.

In the 3<sup>rd</sup> edition, the maximum operating pressure had been raised to 10 bar; now the pressure stages detailed in the European Standards, i.e. 2 bar and 5 bar, have been incorporated as well.

As plastic pipes and their joints and fittings in accordance with GW 335-A5 (reinforced composite PE (oriented PE)), GW 335-A6 (PA-U pipes) and DVGW VP 642 (fibre-reinforced PE pipes (RTP)) are suitable for pressures up to and including 16 bar, the scope of application for plastic pipe systems for the supply of gas may be extended to include pressures above 10 bar. This is now covered by the 4<sup>th</sup> edition.

DIN EN 12007-1 and DIN EN 12186 provide more discretion with regard to the pressure setting of the distribution systems. However, when exercising this discretion and exceeding the hitherto applicable limits (maximum operating pressure may be exceeded by up to 10% in case of failure), care shall be taken to ensure the suitability of all pipeline system components.

Where reasonable and necessary, the requirements of this standard have been harmonised with those of DVGW Standard G 462, including, among other things, the revision of minimum distances and the requirement for acceptance test certificates 3.1 in accordance with DIN EN 10204 for components for operating pressures above 5 bar.

Currently, there exists no standard for the repair of plastic gas pipelines designed for operating pressures above 5 bar. This being so, gas pipeline networks designed for operating pressures above 5 and up to and including 16 bar shall be repaired on the basis of the requirements of DVGW Standard G 466-1 until the publication of a new version of DVGW Standard G 465-2.

Gas networks designed for maximum operating pressures from 5 through 16 bar shall be commissioned in accordance with DVGW Standard G 466-1, pending the publication of an update of DVGW Standard G 465-2.

DVGW Standard G 472:1988-09 was the last one to comprehensively cover PVC. DVGW Standard G 466-3 applies to the maintenance (repair and necessary extensions) of PVC pipelines in operation; in all general aspects, reference is made to DVGW Standard G 472.

### **Amendments**

The following amendments have been made compared to DVGW Standard G 472:2000-08:

- a) Revision of contents taking into account the contents of DIN EN 12007-1, DIN EN12007-2 and DIN EN 12327
- b) Extension of the scope of application to include composite PE pipes (oriented PE/PE) as well as PA-U and PE-RTP pipes designed for operating pressures up to and including 16 bar
- c) Newly defined minimum distances to cables
- d) Revision of the clause on "Gas pipeline pressure testing"
- e) Editorial alignment with DVGW Standard G 462

### **Earlier editions**

DVGW G 472:1971-08

DVGW G 472:1976-09

DVGW G 472:1988-09

DVGW G 472:2000-08