



International  
Standard

**ISO 16611**

**Plastics piping systems for  
drainage and sewerage without  
pressure — Non-circular pipes and  
joints made of glass-reinforced  
thermosetting plastics (GRP) based  
on unsaturated polyester resins  
(UP) — Dimensions, requirements  
and tests**

*Systèmes de canalisation en plastiques pour réseaux  
d'assainissement sans pression — Tuyaux non-circulaires,  
assemblages de tuyaux et raccords en plastiques  
thermodurcissables renforcés de verre (PRV) à base de résines de  
polyester non saturé (UP) — Dimensions, exigences et essais*

**Second edition  
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## Foreword

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This document was prepared by Technical Committee ISO/TC 138, *Plastics pipes, fittings and valves for the transport of fluids*, Subcommittee SC 6, *Reinforced plastics pipes and fittings for all applications*.

This second edition cancels and replaces the first edition (ISO 16611:2017), which has been technically revised.

The main changes are as follows:

[ISO 16611:2026](http://www.iso.org/iso/16611:2026)

- the normative references have been updated;
- the definition of the initial ring stiffness has been aligned with that used in other GRP pipe standards, see [3.3](#);
- the definition of the wet creep factor has been aligned with that used in other GRP pipe standards, see [3.5](#);
- the short-term flexural capacity was introduced as alternative parameter to measure the short-term bending resistance, see [5.2.4](#);
- a new subclause on "Assessment of conformity" has been introduced (see [4.6](#));
- inconsistencies in [Clause 7](#) "Joint performance" have been removed.

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