

INTERNATIONAL
STANDARD

ISO
17885

Second edition
2021-06

**Plastics piping systems — Mechanical
fittings for pressure piping systems —
Specifications**

*Systèmes de canalisations en plastiques — Raccords mécaniques pour
les canalisations sous pression — Spécifications*



Reference number
ISO 17885:2021(E)

© ISO 2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

| | Page |
|--|------------|
| Foreword | v |
| Introduction | vii |
| 1 Scope | 1 |
| 2 Normative references | 1 |
| 3 Terms, definitions, symbols and abbreviated terms | 3 |
| 3.1 Terms and definitions | 3 |
| 3.2 Symbols and abbreviated terms | 5 |
| 3.2.1 Materials | 5 |
| 3.2.2 Applications | 6 |
| 4 Manufacturers' declaration for the field of application | 6 |
| 5 Material | 6 |
| 5.1 General | 6 |
| 5.2 Plastic materials | 7 |
| 5.3 Metals | 8 |
| 5.4 Elastomers | 9 |
| 5.5 Lubricants and/or greases | 10 |
| 6 General characteristics | 10 |
| 6.1 Appearance | 10 |
| 6.2 Colour | 10 |
| 6.3 Weathering protection | 10 |
| 6.4 Threads | 10 |
| 6.5 Transition fittings to metal pipes | 10 |
| 6.6 Combined fittings | 11 |
| 6.7 Twisting | 11 |
| 7 Geometrical characteristics | 11 |
| 8 Physical characteristics | 11 |
| 8.1 Evaluation of the MRS value of the plastic material | 11 |
| 8.2 Verification of long-term behaviour of the plastic material | 11 |
| 8.3 Specific material related characteristics of fitting materials | 12 |
| 8.4 Application-related characteristics | 12 |
| 8.4.1 Effect on water quality (W) | 12 |
| 8.4.2 Resistance to gas constituents (GAS) | 12 |
| 8.4.3 Chemical resistance of fittings for industrial applications (IS) | 13 |
| 9 Performance requirements | 13 |
| 9.1 General | 13 |
| 9.2 Pressure resistance of the fitting body | 14 |
| 9.2.1 Preparation of test piece | 14 |
| 9.2.2 Testing of pressure resistance | 14 |
| 9.3 Fitting assemblies | 14 |
| 9.3.1 Preparation of test assemblies | 14 |
| 9.3.2 Test scheme | 14 |
| 9.3.3 Requirements | 16 |
| 10 Marking | 25 |
| 11 Packaging | 25 |
| Annex A (informative) List of standards | 26 |
| Annex B (normative) Stiffener requirements | 27 |
| Annex C (normative) Test pressure of materials and fitting bodies | 28 |
| Annex D (normative) Physical characteristics of fitting materials | 30 |