

*Replaces DVS 2205-1, Supplement 4 (August 1996), Supplement 15 (September 2005),
Supplement 18 (February 2006), Supplement 20 (August 2007), Supplement 21 (January 2008) and Supplement 25 (August 2007).*

This supplement includes characteristic values for the PVDF, PVDF(-C), E-CTFE and PTFE materials.

Contents:

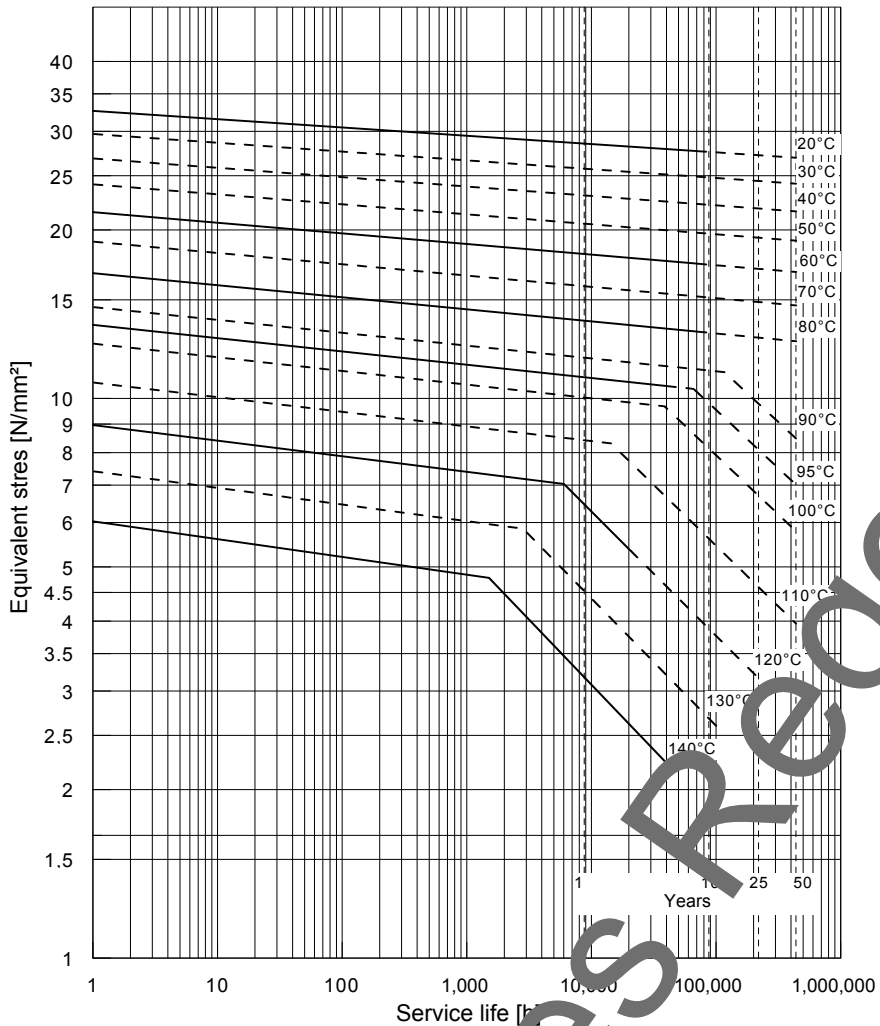
- 1 PVDF (polyvinylidene fluoride homopolymer, PVDF)
 - 1.1 Creep curves of PVDF for pipes
 - 1.2 Isochronous stress/strain diagram of PVDF for 20°C
 - 1.3 Creep modulus curves of PVDF for one, ten and 25 years for the stress range from 2 N/mm² to 5 N/mm²
- 2 PVDF (polyvinylidene fluoride copolymer, PVDF-C, Type 1 and Type 2)
 - 2.1 Creep curves of PVDF-C, Type 2 for pipes
 - 2.2 Isochronous stress/strain diagram of PVDF-C, Type 1 for 20°C
 - 2.3 Creep modulus curves of PVDF-C, Type 1 for one year for the stress range from 1 N/mm² to 8 N/mm²
 - 2.4 Creep modulus curves of PVDF-C, Type 1 for ten years for the stress range from 1 N/mm² to 8 N/mm²
 - 2.5 Creep modulus curves of PVDF-C, Type 1 for 25 years for the stress range from 1 N/mm² to 8 N/mm²
- 3 Coefficients for 2NCT/FNCT in the case of PVDF
- 4 PVDF / E-CTFE media list
- 5 E-CTFE (ethylene chlorotrifluoroethylene)
 - 5.1 Creep curves for pipes
 - 5.2 Isochronous stress/strain diagram of E-CTFE for 20°C
 - 5.3 Creep modulus curves of E-CTFE for one year
 - 5.4 Creep modulus curves of E-CTFE for one year; range from 50°C to 120°C
 - 5.5 Creep modulus curves of E-CTFE for ten years
 - 5.6 Creep modulus curves of E-CTFE for ten years; range from 50°C to 120°C
 - 5.7 Creep modulus curves of E-CTFE for 25 years
 - 5.8 Creep modulus of E-CTFE for 25 years; range from 50°C to 120°C
- 6 PTFE (polytetrafluoroethylene)
 - 6.1 Creep curves for pipes
- 7 Reduction coefficients A_1 for moulding materials made of fluoropolymers
- 8 Literature

This publication has been drawn up by a group of experienced specialists working in an honorary capacity and its consideration as an important source of information is recommended. The user should always check to what extent the contents are applicable to his particular case and whether the version on hand is still valid. No liability can be accepted by the Deutscher Verband für Schweißen und Verwandte Verfahren e.V., and those participating in the drawing up of the document.

DVS, Technical Committee, Working Group "Joining of Plastics"

1 PVDF (polyvinylidene fluoride homopolymer, PVDF)

1.1 Creep curves of PVDF for pipes



Straight line equation::

$$\lg(t) = A + B/T \times \lg(\sigma) + C/T + D \times \lg(\sigma)$$

Coefficients of the minimum curves:

Flat part		Steep part	
A ₁ = -165.4959	A ₂ = -23.19426	B ₂ = -1,611.687	C ₂ = 12,100.011
B ₁ = -36,518.671		D ₂ = -0.40473	
C ₁ = 78,465.650			
D ₁ = 57-04670			