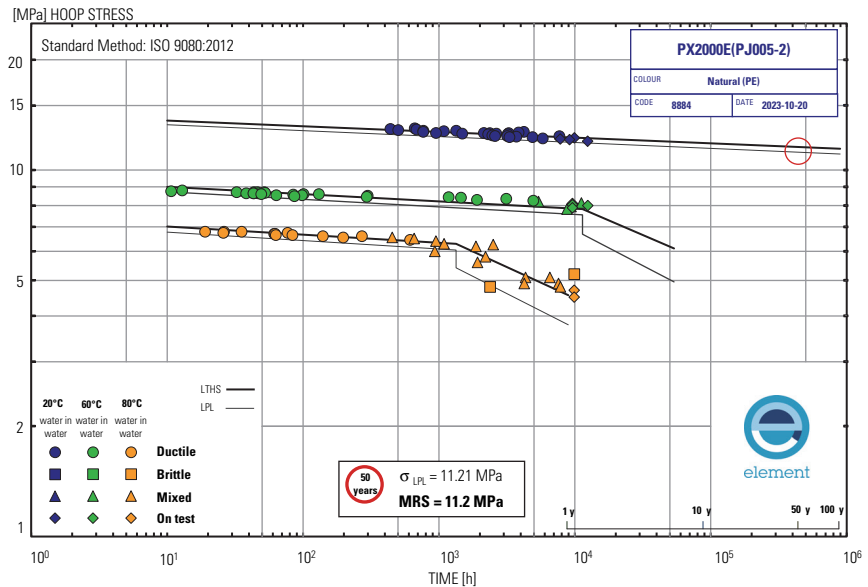


CLIENT: Keiyo Polyethylene Co., Ltd

REGRESSION ANALYSIS ACCORDING TO EN ISO 9080 OF THE NATURAL PE PIPE GRADE PX2000E(PJ005-2)



INTRODUCTION

Element offers accredited testing and evaluation according to EN ISO 9080, i.e. hydrostatic pressure testing followed by evaluation of the long-term hydrostatic strength and MRS-classification according to ISO 12162.

TASK

The aim was to evaluate the pipe compound according to EN ISO 9080:2012, in order to obtain a MRS-classification according to ISO 12162:2009 of the natural PE pipe grade PX2000E(PJ005-2) from Keiyo Polyethylene Co., Ltd

RESULTS OBTAINED

The evaluation was performed in accordance with EN ISO 9080:2012. There is a knee detection at 80°C, 6.29 MPa and 1 337 h. More information can be found in Element Report P-23-146-v1.

EXTRAPOLATED STRENGTH VALUES

T [°C]	Time [Yrs]	σ_{LPL} [MPa]	σ_{LTHS} [MPa]
20	50.0	11.21	11.56
20	102	11.07	11.43
60	6.13	4.95	6.11
80	1.02	3.78	4.56

CLASSIFICATION

MRS = 11.2 MPa

As the MRS value equals 11.2 MPa the material is designated PE 112 according to ISO 12162:2009

Please note!

This only covers the EN ISO 9080-evaluation, MRS classification and material designation. Any additional requirements for PE 112 are given in the relevant product standards.

