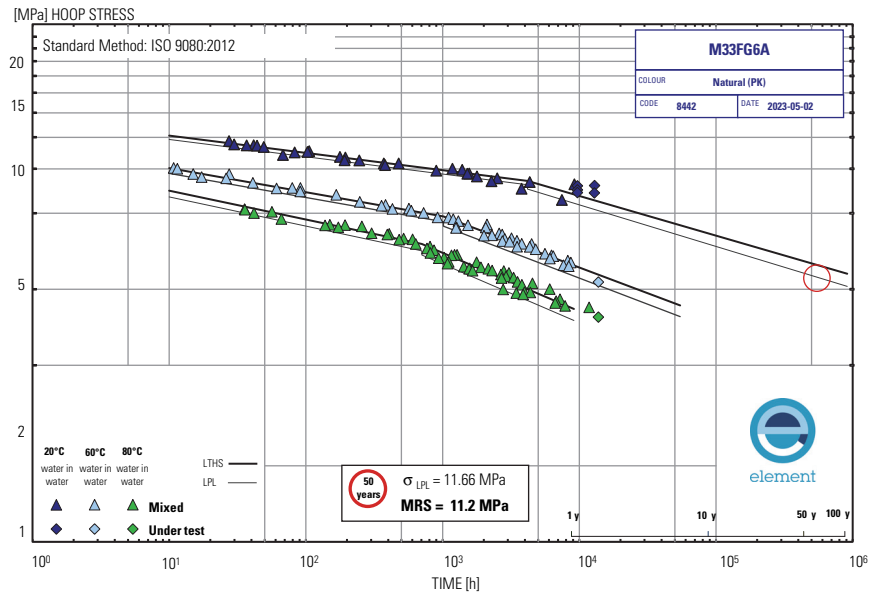


CLIENT: HYOSUNG CHEMICAL CORPORATION

REGRESSION ANALYSIS ACCORDING TO EN ISO 9080 OF THE PK PIPE GRADE M33FG6A NATURAL



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 PK pipe grade M33FG6A natural from Hyosung Chemical Corporation.

RESULTS OBTAINED

The evaluation was performed in accordance with EN ISO 9080:2012. More information can be found in Element Report P-23-39-v2.

EXTRAPOLATED STRENGTH VALUES

T	Time	σ_{LPL}	σ_{LTHS}
[°C]	[Yrs]	[MPa]	[MPa]
20	50.0	12.94	11.66
20	100	11.61	10.34
60	6.25	7.79	8.64
80	1.04	7.53	8.36

CLASSIFICATION

MRS = 11.2 MPa

As the MRS value equals 11.2 MPa the material is designated PK 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 PK 112 are given in the relevant product standards.

