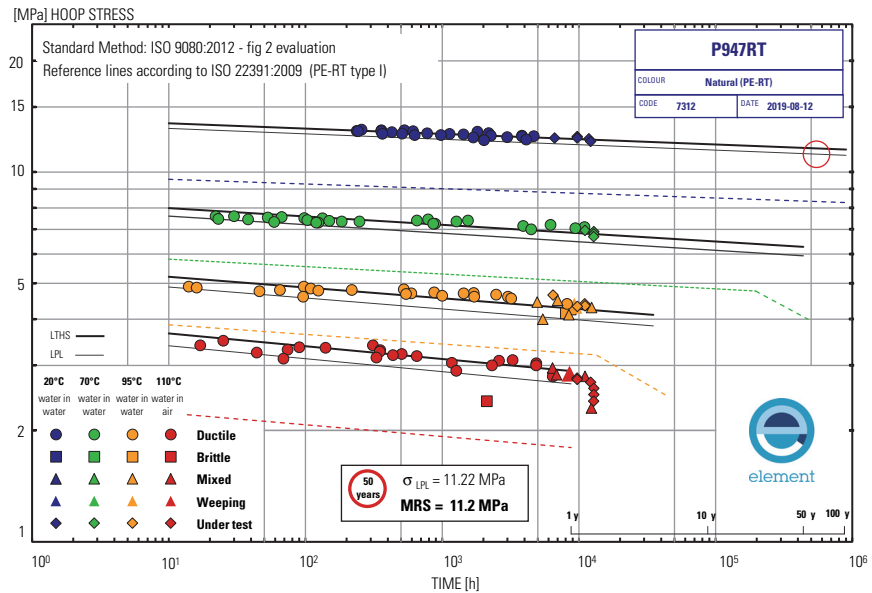


CLIENT: SABIC

## REGRESSION ANALYSIS ACCORDING TO ISO 9080 OF THE NATURAL PE-RT PIPE GRADE P947RT



### INTRODUCTION

Element offers accredited testing and evaluation according to 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 ISO 9080:2012, in order to obtain a MRS-classification according to ISO 12162:2009 of the natural PE-RT pipe grade P947RT from SABIC.

### RESULTS OBTAINED

The evaluation was performed in accordance with ISO 9080:2012. More information can be found in Element Report P-19/51-v1.

#### EXTRAPOLATED STRENGTH VALUES

T [°C]	Time [Yrs]	σ <sub>LPL</sub> [MPa]	σ <sub>LTHS</sub> [MPa]
20	50.0	11.22	11.63
20	100	11.11	11.51
70	50.0	5.94	6.28
95	4.00	3.84	4.11
110	1.00	2.67	2.90

#### CLASSIFICATION

**MRS = 11.2 MPa**

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