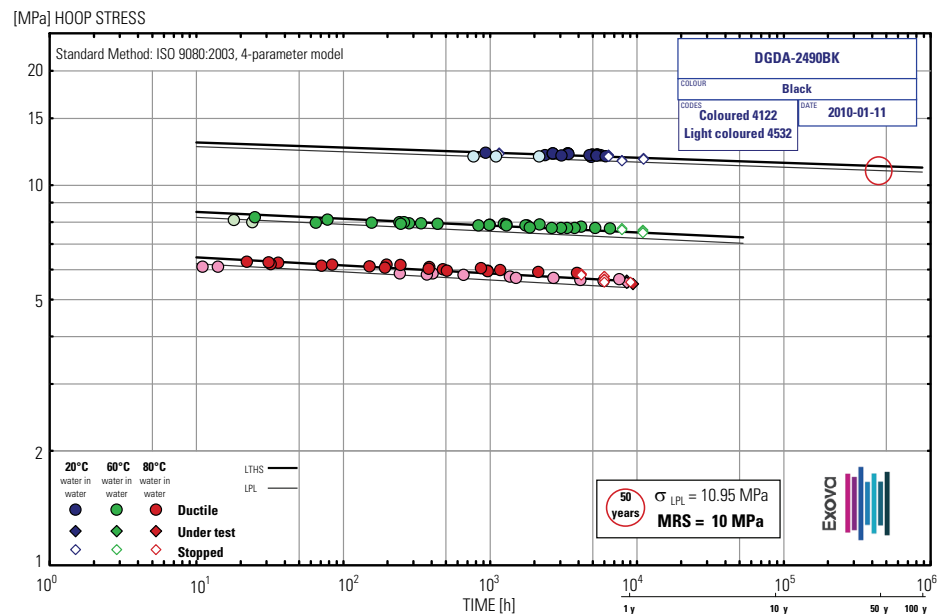


CLIENT: The DOW Chemical Company REGRESSION ANALYSIS ACCORDING TO ISO 9080 OF THE PE PIPE GRADE DGDA-2490BK



INTRODUCTION

Exova 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 compound according to ISO 9080 in order to obtain a MRS-classification according to ISO 12162 of the PE pipe grade DGDA-2490BK from the DOW Chemical Company.

The evaluation was made on two different extrusion lots from the same batch (UA2855P84D) hence the two codes in the report. Both lots have been tested at all test temperatures.

RESULTS OBTAINED

The evaluation was performed in accordance with ISO 9080:2003. More information can be found in Exova Report P-10/07.

EXTRAPOLATED STRENGTH VALUES

Temp [°C]	Time [Yrs]	σ_{LPL} [MPa]	σ_{LTHS} [MPa]
20	50.0	10.95	11.24
20	100	10.84	11.14
60	6.02*	7.04	7.29
80	1.00*	5.38	5.60

*This time will increase as the testing continues at 80°C.

CLASSIFICATION

MRS = 10 MPa

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