

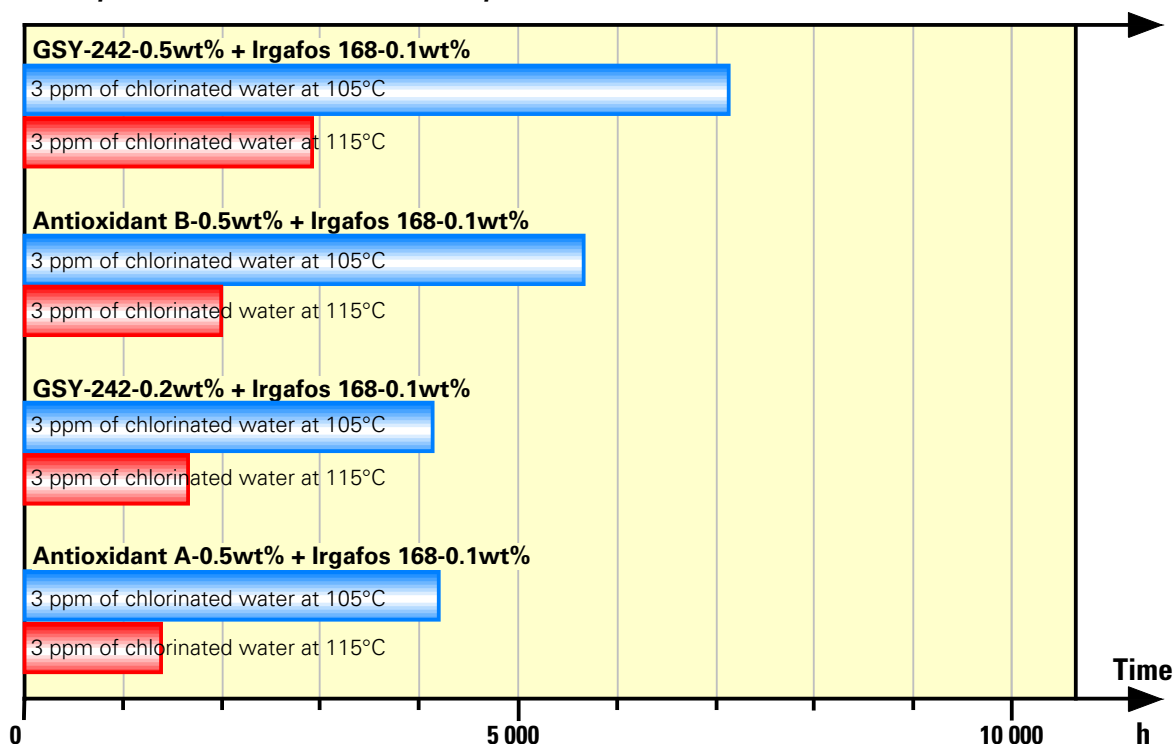
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Evaluation of the effect of chlorinated water on PEX pipes with different antioxidant systems

API Corporation has ranked the effect of chlorinated water on four different PEX pipe formulations with different antioxidant systems. The tests have been carried out using 3 ppm of chlorinated water at 115 and 105°C at a hoop stress level of 1 MPa. The results from the evaluation are presented below:

Ranking of four different antioxidant systems tested at 3 ppm of chlorinated water at the temperatures 105 and 115°C and at a hoop stress level of 1 MPa



The following average failure times and relative failure times have been obtained for the four different antioxidant systems tested at 3 ppm of chlorinated water at the temperatures 115 and 105°C and at a hoop stress level of 1 MPa

Material	Average failure time 1 MPa/115°C/3 ppm	Relative failure time at 115°C	Average failure time 1 MPa/105°C/3 ppm	Relative failure time at 105°C
GSY-242-0.5wt%+Irgafos 168-0.1wt%	2 907 h	1.00	7 111 h	1.00
Antioxidant B-0.5wt% + Irgafos 168-0.1wt%	1 976 h	0.68	5 645 h	0.79
GSY-242-0.2wt%+Irgafos 168-0.1wt%	1 662 h	0.57	4 132 h	0.58
Antioxidant A-0.5wt% + Irgafos 168-0.1wt%	1 368 h	0.47	4 197 h	0.59

Please contact us for further information!