Transport Roads & Maritime Services

NSW GOVERNMENT

Test method T1161

High temperature recovery of polychloroprene elastomeric joint seals for bridge structures

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Revision Summary

Ed/Rev Number	Clause Number	Description of Revision	Authorisation	Date
		Reformatted and Revision Summary Added	D. Dash	June 2001
Ed 2/ Rev 0	All	Reformatted RMS template	J Friedrich	November 2012

Note that Roads and Maritime Services is hereafter referred to as 'RMS'.

The most recent revision to Test method T1161 (other than minor editorial changes) are indicated by a vertical line in the margin as shown here.

Test method T1161

High temperature recovery of polychloroprene elastomeric joint seals for bridge structures

1. Scope

This test method sets out the procedure for measuring the recovery of polychloroprene elastomeric joint seal when exposed to heat while under compression. The test method is adapted from the test method outlined in the American Society for Testing and Materials D2628-69.

2. Apparatus

(a) Parallel metal plates preferably chrome plated 200 mm by 125 mm by 10 mm, drilled at each corner and fitted with bolts and nuts suitably protected from corrosion.

(b) An oven maintained at 100 ± 1°C.

(c) Dial gauge, with a 6.4 mm diameter foot, graduated in units of 25 μm, mounted on a platform in such a manner that the width o the specimen may be measured before and after treatment.

3. Preparation

The sample to consist of a test piece 127 mm long.

4. Procedure

(a) Measure the width of the sample of joint seal with the top longitudinal edge of the specimen at the centre of the foot. Carefully mark the foot position on the specimen before the initial gauge reading is taken.

(b) Place the specimen in a horizontal position such that the plane through both edges at the top surface of the joint seal is perpendicular to the compression plates. The specimens are to be tested as received with no additional internal dusting with talc. The outside surface may be lightly dusted with talc.

(c) Compress the joint seal between the compression plates by hand pressure and by screwing the nuts down on the bolts, making sure that the top surface of the joint seal folds inwards towards the centre of the specimen. The deflection plates are to be kept parallel during the deflection. Deflect the specimen to 50 per cent of the original top width.

(d) Place the clamp assembly containing the compressed specimen in the oven at 100 ± 1°C for 70 hours without having preheated the clamp assembly.

(e) Unclamp the assembly at the end of this period and allow to cool at 24 ± 2° C on a wooden surface for one hour.

(f) Measure the recovered width at the same location as the original width.

5. Calculation and Reporting

Calculate the per cent recovery as follows:

$$\text{Recovery per cent} = \frac{RecoveredWidth}{OriginalWidth} \times 100$$

Report as the percent recovery after high temperature treatment.

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