

Laboratory Reference: CAN14W2481/3

ADHESION AGENT TEST REPORT

ATTENTION:

Ray Georgey

CLIENT: Otech Australia
 CLIENT REFERENCE: **Heat-stability of Otech AGGBIND-75® at 160°C – 48 hours**
 ADHESION AGENT: Otech AGGBIND-75® liquid adhesion agent
 ADHESION AGENT SOURCE: Sampled from Fulton Hogan Bitumen Plant, Lyttelton in June 2013
 AGGREGATE SOURCE: Fulton Hogan Miners Road Quarry, sampled in April 2014
 BITUMEN SOURCE: 180/200 Penetration Grade Bitumen (CAN14B-0279)
 Sampled from wharf line, Fulton Hogan Bitumen Plant on 30/04/2014
 TEST METHOD USED: WCS, CLBAA Test Method B301-89T (modified)
 TESTED BY: Rachel Smith & Clare Dring on 28/05/2014

RESULTS:

AGGREGATE SOURCE	AGENT QUANTITY (PPH BY VOLUME)	TEST CONDITIONS	TEST RESULT	TEST CRITERION
Fulton Hogan Canterbury Miners Road Quarry	0.7	48 hours at 160°C	93	0.66
			Spec : 80 min	Spec : 2 max

NOTE: WCS, CLBAA Test Method B301-89T was modified for heat-stability tests. Oven temperature was 160 ± 2°C, mass of bitumen to be doped was increased to 900g, and doped bitumen was held at the stated temperature for the period shown in the results table above.

Test performed using: Grade 3 chip of greywacke origin
 Chip sieved between 13.2 & 9.5mm sieves and washed in deionised water
 180/200 Penetration Grade Bitumen (CAN14B-0279 – shipment KK620, ex NZRC)
 Adhesion agent set up time was 2.5 hours
 Test temperature of 25°C

Report Issued By: Logan Burford on 11/06/2014

Report Checked By:



Disclaimer: These test results apply to the samples as received by the Laboratory. No liability will be accepted by the Laboratory for any misrepresentation with respect to the sampling of material for testing and/or the use of these test results.

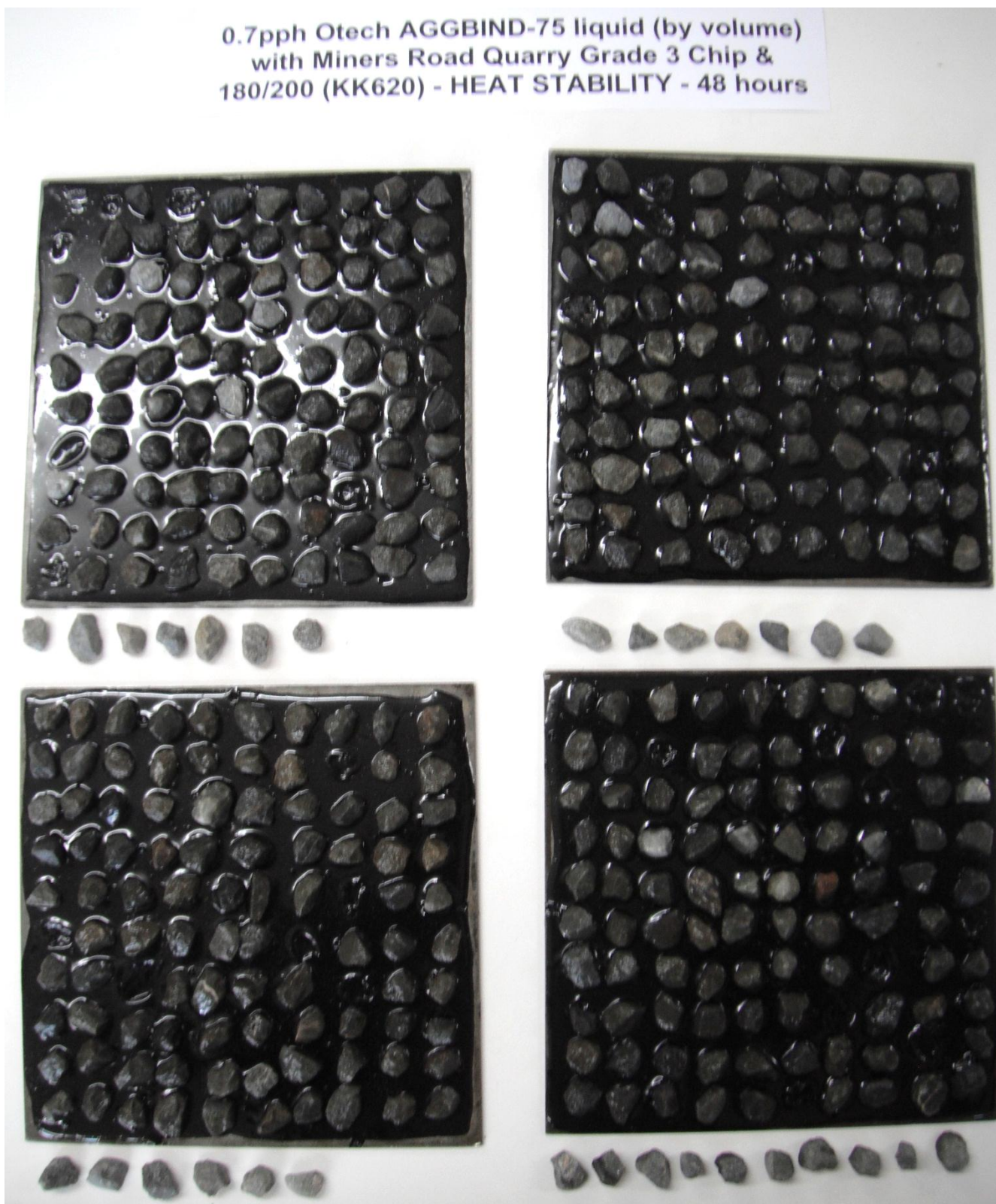


Figure 1. Photograph showing test plates with 180/200 bitumen and 0.7pph Otech AGGBIND-75[®] (by volume) after test was performed. Fulton Hogan - Miners Road Grade 3 chip dislodged is arranged below the plates.