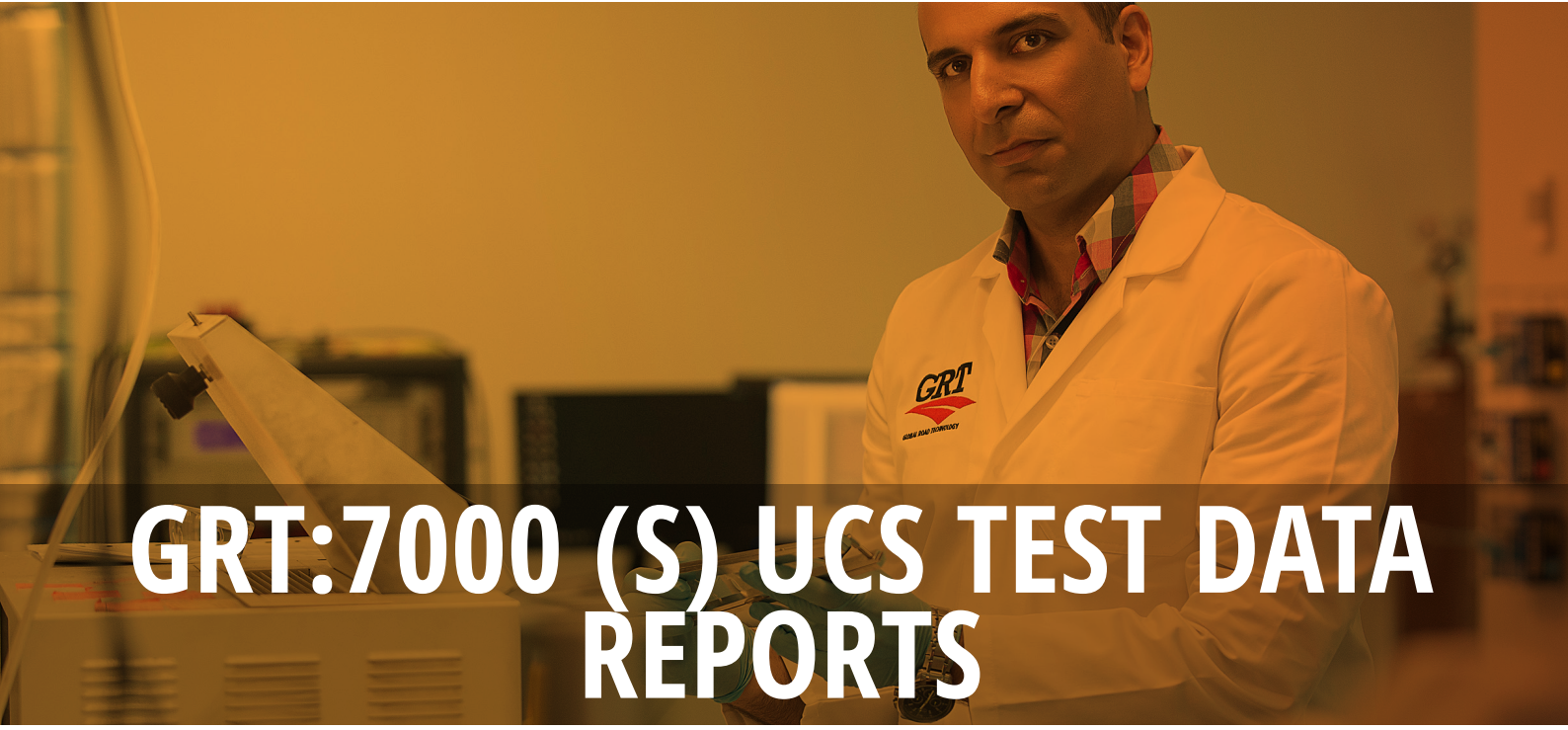

GRT:7000 (S) UCS TEST DATA REPORTS

Continuous improvement and development of the GRT products is surging ahead with leaps and bounds. The latest addition to our product line-up is the GRT7000 (S). Soil Strengths beyond 8 MPa can be achieved with as little as 1 % of product.

Unconfined Compression Strength (UCS) testing of Department of Transport and Main Roads (DTMR) Type 2, sub-type 2.5 gravel with 1 % GRT:7000 (S) additive produced a UCS test result at 5 days of 8.9MPa when tested in accordance with MRS Q115. An additional increase of polymer content to 3 % resulted in a UCS of 14 MPa also at 5 days. Development of test methods for testing of the flexural strength and fatigue property of the material is currently underway so as to provide an indication of toughness and expected fatigue life of the polymer. Initial results are very promising with resilient modulus values in excess of 7,000 MPa expected.

Comparative UCS results in cement stabilised type 2 gravels, require in excess of 5 and 6 %, and up to 8 % cement by mass for the lower sub-types.

Linear shrinkage testing of the polymer modified blended Type 2, gravel showed a reduction in plastic behaviour and initial indications are the polymer is not susceptible to shrinkage cracking. Further validation is also currently underway.

The polymer is cross-linked and after curing is chemically stable and does not leach out with rainfall or inundation.

THE SUMMARY BELOW INDICATES STRENGTH ACHIEVABLE WITHIN 5 DAYS OF BATCHING.

Material:	Roadbase Type 2.1C	Roadbase Type 2.1C	Roadbase Type 2.1C
Compaction Standard:	Standard	Standard	Standard
Curing	5 Days	5 Days	5 Days
Stabilising Agent - Type:	GRT 7000/S	GRT 7000/S	GRT 7000/S
Stabilising Agent: Proportion (%):	1	2	3
Achieved Mean Dry Density (t/m3)	2.20	2.24	2.25
Achieved Moisture Content (%)	6.1	6.1	5.9
Moisture Content at Time of Testing (%)	NA	NA	NA
UCS (Mpa)	8.49	12.15	14.24
UCS (Mpa)	8.58	12.45	13.8
UCS (Mpa)	8.86	12.09	12.42
Mean UCS (Mpa):	**8.64**	**12.23**	**13.49**

GRT Global Road Technology

To find out more:
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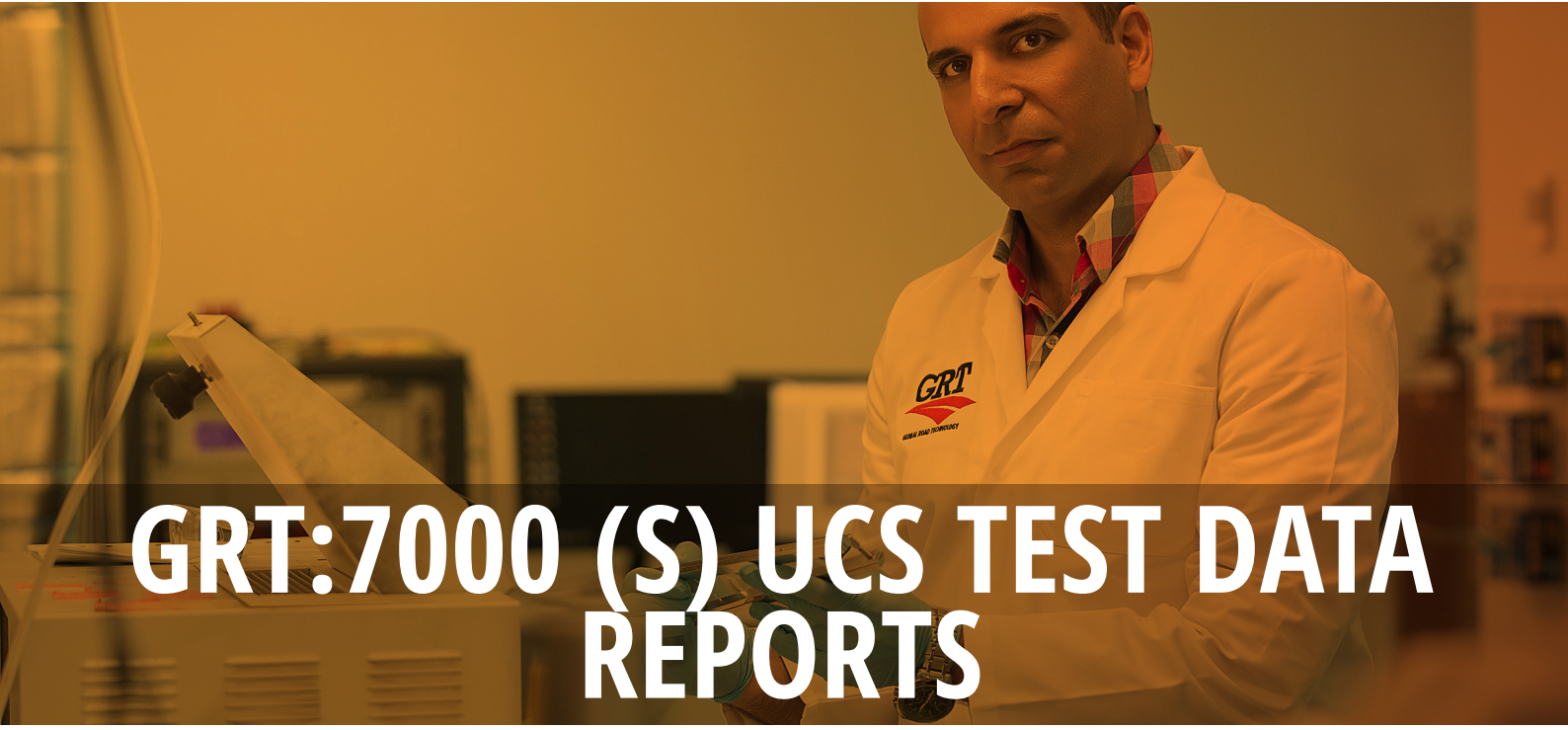
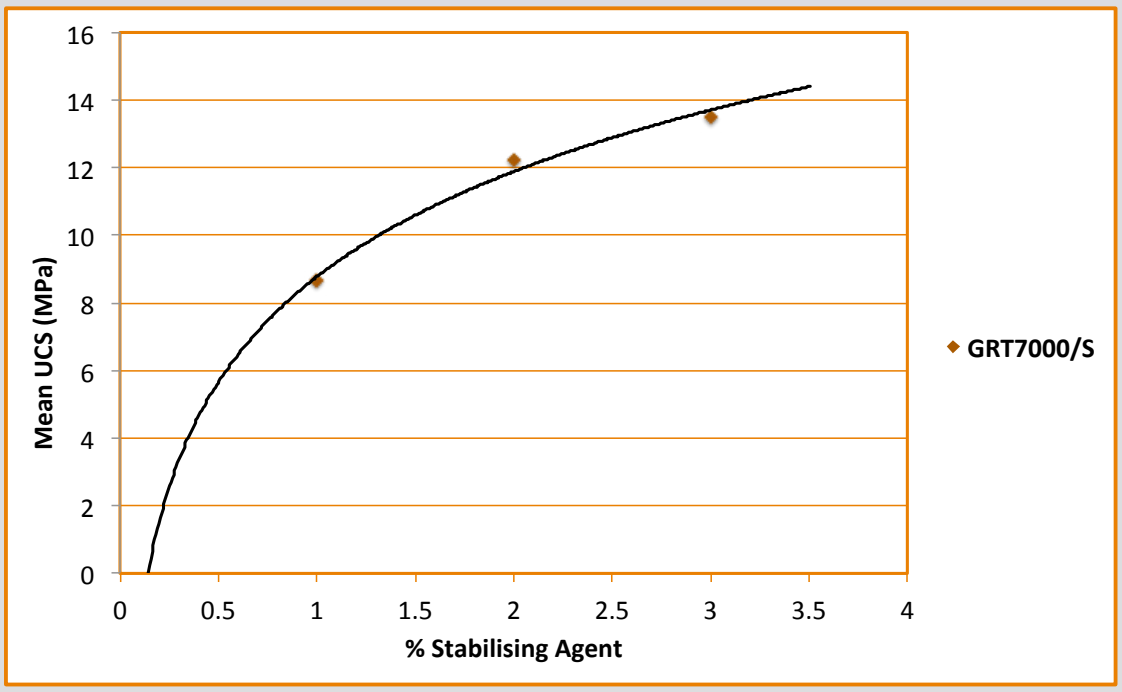
www.globalroadtechnology.com



GRT:7000 (S) UCS TEST DATA REPORTS

This product now offers economic options in the construction of: Laydown Yards, Loading Terminals, Car Parks or anywhere that requires an inexpensive alternative to concrete.

With the increased flexural strength polymer treatment brings over cement, a wider scope for application in pavement construction can now be considered. Strengths far higher than that previously considered in bound pavement design can now be considered without the associated shrinkage cracking, which leads to reflective cracking, and premature failure.



The non-linear relationship in UCS, displayed with increased binder content can be associated with an increase in resilient modulus and flexural strength where the properties increasingly suit application in the design of deep lift asphalt and concrete sub base pavement design.

GRT Global Road Technology

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Unconfined Compressive Strength

Report No: UCS:NEWS15S-01371
Issue No: 1

Client: Global Road Technology
1-5 Union Circuit
Yatala QLD 4207

Principal:
Project No.: INFONEWS00835AA
Project Name: UCS Trials
Lot No.: **TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Glen Wratt
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 16/04/2015

Sample Details

Work Order ID: NEWS15W00637
Sampling Method: Submitted by client
Material: 2.5 Base course
Source: Ormeau Landscape Supplies
Specification:
Project Location: Yatala
Sample Location: Trial, Additive XQ 1%, 6%MC - 50% Polymer Mass

Sample ID: NEWS15S-01371
Date Sampled:
Date Submitted: 10/04/2015
Date Tested: 15/04/2015

Unconfined Compressive Strength [Q115]

Q115

Compaction Standard:
Stabilising Agent - Type: GRT
Stabilising Agent - Source: Client supplied
Stabilising Agent - Proportion (%): 1.0
Mean UCS (MPa): 5.8
Target Dry Density (t/m³):
Air Curing - Curing Period (days): 5
Air Curing - Temperature (C): 45

Project Type: Laboratory Design
Stabilising Agent - Sampled From: Bag
Target Moisture Content (%): 6.0

Specimens

No	Achieved Dry Density (t/m³)	Achieved Relative Compaction (%)	Achieved Moisture Content (%)	Achieved Percent of OMC (%)	Unconfined Compressive Strength (MPa)	Tested Capped (Yes/No)	Exclude this result (Yes/No)
1	2.201		6.1	102	5.7	No	No
2	2.238		6.1	102	5.8	No	No
3	2.254		6.1	102	5.8	No	No

Comments

Reported values exceeded load cell limits. Compression Machine Results;
A- 8.49MPa
B- 8.58MPa
C- 8.86MPa

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Unconfined Compressive Strength

Report No: UCS:NEWS15S-01372
Issue No: 1

Client: Global Road Technology
1-5 Union Circuit
Yatala QLD 4207

Principal:
Project No.: INFONEWS00835AA
Project Name: UCS Trials
Lot No.: **TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Glen Wratt
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 16/04/2015

Sample Details

Work Order ID: NEWS15W00637
Sampling Method: Submitted by client
Material: 2.5 Base course
Source: Ormeau Landscape Supplies
Specification:
Project Location: Yatala
Sample Location: Trial, Additive XQ 2% @ 6%MC - 50% of Polymer Mass

Sample ID: NEWS15S-01372
Date Sampled:
Date Submitted: 10/04/2015
Date Tested: 11/04/2015

Unconfined Compressive Strength [Q115]

Q115

Compaction Standard: Standard
Stabilising Agent - Type: GRT
Stabilising Agent - Source: Client supplied
Stabilising Agent - Proportion (%): 2.0
Mean UCS (MPa): 5.7
Target Dry Density (t/m³):
Air Curing - Curing Period (days): 5
Air Curing - Temperature (C): 45

Project Type: Laboratory Design
Stabilising Agent - Sampled From: Bag
Target Moisture Content (%): 6.0

Specimens

No	Achieved Dry Density (t/m³)	Achieved Relative Compaction (%)	Achieved Moisture Content (%)	Achieved Percent of OMC (%)	Unconfined Compressive Strength (MPa)	Tested Capped (Yes/No)	Exclude this result (Yes/No)
1	2.233		6.1	101	5.8	No	No
2	2.205		6.1	101	5.8	No	No
3	2.223		6.1	101	5.7	No	No

Comments

Reported values exceeded load cell limits. Compression Machine Results;
A - 12.15MPa
B- 12.45MPa
C- 12.09MPa

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Unconfined Compressive Strength

Report No: UCS:NEWS15S-01373
Issue No: 1

Client: Global Road Technology
1-5 Union Circuit
Yatala QLD 4207

Principal:
Project No.: INFONEWS00835AA
Project Name: UCS Trials
Lot No.: **TRN:**

Accredited for compliance with ISO/IEC 17025.

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

Approved Signatory: Glen Wratt
(Senior Geotechnician)
NATA Accredited Laboratory Number:431
Date of Issue: 16/04/2015

Sample Details

Work Order ID: NEWS15W00637
Sampling Method: Submitted by client
Material: 2.5 Base course
Source: Ormeau Landscape Supplies
Specification:
Project Location: Yatala
Sample Location: Trial, Additive XQ 3% @ 6%MC - 50% of Polymer Mass

Sample ID: NEWS15S-01373
Date Sampled:
Date Submitted: 10/04/2015
Date Tested: 11/04/2015

Unconfined Compressive Strength [Q115]

Q115

Compaction Standard:
Stabilising Agent - Type: GRT
Stabilising Agent - Source: Client supplied
Stabilising Agent - Proportion (%): 3.0
Mean UCS (MPa): 5.7
Target Dry Density (t/m³):
Air Curing - Curing Period (days): 5
Air Curing - Temperature (C): 45

Project Type:
Stabilising Agent - Sampled From: Bag
Target Moisture Content (%): 6.0

Specimens

No	Achieved Dry Density (t/m³)	Achieved Relative Compaction (%)	Achieved Moisture Content (%)	Achieved Percent of OMC (%)	Unconfined Compressive Strength (MPa)	Tested Capped (Yes/No)	Exclude this result (Yes/No)
1	2.231		5.9	99	5.7	No	No
2	2.215		5.9	99	5.7	No	No
3	2.243		5.9	99	5.7	No	No

Comments

Reported values exceeded load cell limits. Compression Machine Results;
A- 14.24MPa
B- 13.80MPa
C- 12.42MPa