

**Index of Provisionally Approved Mix Designs
Road Asphalt Limited**

I. Reclaimed Asphalt Pavement (RAP) Mix

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
10mm Wearing Course	10WC/RAL/TS/RAP15/001	10WC/RAL/TS/RAP15/001	05-Oct-2021	10-Nov-2021	09-Nov-2024
20mm Wearing Course	20WC/RAL/TS/RAP15/001	20WC/RAL/TS/RAP15/001	06-May-2021	02-Sep-2021	01-Sep-2024
28mm Base Course	28BC/RAL/TS/RAP15/001	28BC/RAL/TS/RAP15/001	13-May-2021	02-Sep-2021	01-Sep-2024
37.5mm Base Course	40BC/RAL/TS/RAP15/001	40BC/RAL/TS/RAP15/001	20-May-2021	02-Sep-2021	01-Sep-2024
37.5mm Roadbase (recipe mix)	40RB/RAL/TS/RAP15/001	40RB/RAL/TS/RAP15/001	27-May-2021	--	--

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
10mm Wearing Course	10WC/RAL/TS/RAP30/001	10WC/RAL/TS/RAP30/001	20-Apr-2021	02-Sep-2021	01-Sep-2024
20mm Wearing Course	20WC/RAL/TS/RAP30/001	20WC/RAL/TS/RAP30/001	25-Mar-2021	02-Sep-2021	01-Sep-2024
28mm Base Course	28BC/RAL/TS/RAP30/001	28BC/RAL/TS/RAP30/001	29-Mar-2021	02-Sep-2021	01-Sep-2024
37.5mm Base Course	40BC/RAL/TS/RAP30/001	40BC/RAL/TS/RAP30/001	14-Apr-2021	02-Sep-2021	01-Sep-2024

II. Reclaimed Asphalt Pavement (RAP) with Lime Mix

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
10mm Wearing Course	10WC/RAL/TS/RAP15/LIME/001	10WC/RAL/TS/RAP15/LIME/001	22-Jul-2021	02-Sep-2021	01-Sep-2024
20mm Wearing Course	20WC/RAL/TS/RAP15/LIME/001	20WC/RAL/TS/RAP15/LIME/001	01-Jun-2021	02-Sep-2021	01-Sep-2024
28mm Base Course	28BC/RAL/TS/RAP15/LIME/001	28BC/RAL/TS/RAP15/LIME/001	21-Jun-2021	02-Sep-2021	01-Sep-2024
37.5mm Base Course	40BC/RAL/TS/RAP15/LIME/001	40BC/RAL/TS/RAP15/LIME/001	24-Jun-2021	02-Sep-2021	01-Sep-2024
37.5mm Roadbase (recipe mix)	40RB/RAL/TS/RAP15/LIME/001	40RB/RAL/TS/RAP15/LIME/001	28-Jun-2021	--	--

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
10mm Wearing Course	10WC/RAL/TS/RAP30/LIME/001	10WC/RAL/TS/RAP30/LIME/001	03-Oct-2022	23-Dec-2022	22-Dec-2025
20mm Wearing Course	20WC/RAL/TS/RAP30/LIME/001	20WC/RAL/TS/RAP30/LIME/001	27-Apr-2022	26-May-2022	25-May-2025
28mm Base Course	28BC/RAL/TS/RAP30/LIME/001	28BC/RAL/TS/RAP30/LIME/001	31-May-2022	23-Dec-2022	22-Dec-2025

III. Polymer Modified Mix

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
10mm Polymer Modified Friction Course	10PMFC/RAL/TS/PG/001	10PMFC/RAL/TS/PG/001	29-Jan-2021	17-Aug-2021	16-Aug-2024
3.35mm Polymer Modified Cushion Course	CC/RAL/TS/PG/001	CC/RAL/TS/PG/001	19-Mar-2021	17-Aug-2021	16-Aug-2024
10mm Polymer Modified Stone Mastic Asphalt	10PMSMA/RAL/TS/PG/TOP/001	10PMSMA/RAL/TS/PG/TOP/001	16-Mar-2021	17-Aug-2021	16-Aug-2024
6mm Polymer Modified Stone Mastic Asphalt	6PMSMA/RAL/TS/PG/TOP/75/001	6PMSMA/RAL/TS/PG/TOP/75/001	09-Aug-2021	24-Sep-2021	23-Sep-2024

Remark: Mix design details are tabled in the appropriate spreadsheets.

Summary of Provisionally Approved Mix Designs
Road Asphalt Limited
(RAP Mix)

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Filler (passing 75 μ m BS sieve)	Tai Sheng Quarry, China	Crushed rock filler

2. Mix Designs :

Bituminous Material	10mm Wearing Course		20mm Wearing Course		28mm Base Course		37.5mm Base Course		37.5mm Roadbase (recipe mix)	
	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Data	GS Requirement*
HyD Mix No.	10WC/RAL/TS/RAP15/001		20WC/RAL/TS/RAP15/001		28BC/RAL/TS/RAP15/001		40BC/RAL/TS/RAP15/001		40RB/RAL/TS/RAP15/001	
Supplier's Mix No.	10WC/RAL/TS/RAP15/001		20WC/RAL/TS/RAP15/001		28BC/RAL/TS/RAP15/001		40BC/RAL/TS/RAP15/001		40RB/RAL/TS/RAP15/001	
Date of Design	05-Oct-2021		06-May-2021		13-May-2021		20-May-2021		27-May-2021	
Approval Date	10-Nov-2021		02-Sep-2021		02-Sep-2021		02-Sep-2021		--	
Expiry Date	09-Nov-2024		01-Sep-2024		01-Sep-2024		01-Sep-2024		--	
Binder content (%)	6.0	5.5 - 6.5	5.1	4.6 - 5.6	4.6	4.1 - 5.1	4.1	3.6 - 4.6	3.5	3.0 - 4.0
B.S. Sieve (mm)	% Passing		% Passing		% Passing		% Passing		% Passing	
50							100	100	100	100
37.5					100	100	100	96 - 100	99	90 - 100
28			100	100	96	92 - 100	90	83 - 97	89	70 - 94
20			98	94 - 100	89	82 - 96	78	71 - 85	76	62 - 84
14	100	100	89	82 - 96	76	69 - 83	69	62 - 76	--	--
10	96	92 - 100	81	74 - 88	65	58 - 72	62	55 - 69	59	49 - 67
5	72	65 - 79	64	57 - 71	46	39 - 53	48	41 - 55	44	37 - 55
2.36	52	45 - 59	47	40 - 54	35	28 - 42	36	29 - 43	33	27 - 43
1.18	39	32 - 46	35	28 - 42	25	18 - 32	26	19 - 33	--	--
0.600	28	23 - 33	25	20 - 30	18	13 - 23	20	15 - 25	18	13 - 28
0.300	18	13 - 23	16	11 - 21	12	7 - 17	13	8 - 18	14	7 - 21
0.150	12	9 - 15	11	8 - 14	8	5 - 11	9	6 - 12	--	--
0.075	7.5	5.5 - 9.5	6.4	4.4 - 8.4	5.9	3.9 - 7.9	6.1	4.1 - 8.1	6.5	2.0 - 8.0
		10.5 [#]		9.4 [#]		8.9 [#]		9.1 [#]		8.0 [@]
	(including 15% RAP)		(including 15% RAP)		(including 15% RAP)		(including 15% RAP)		(including 15% RAP)	
	Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	3.0	3.0 - 5.0	4.2	3.0 - 5.0	3.9	3.0 - 5.0	4.4	3.0 - 5.0	--	--
Voids in mineral aggregate, VMA (%)	16.3	≥ 16	15.2	≥ 14	13.8	≥ 13	13.2	≥ 12.5	--	--
Marshall stability (kN)	13.9	≥ 10	15.9	≥ 10	16.1	≥ 10	19.7	≥ 10	--	--
Flow (mm)	2.8	≤ 4.0	2.7	≤ 4.0	3.5	≤ 4.0	2.9	≤ 4.0	--	--

* For reference only

[#] The percentage passing the 0.075mm BS sieve shall not deviate from the approved design value by more than 3%.[@] The percentage passing the 0.075mm BS test sieve shall not exceed 8.0%.

RAP Mix

Summary of Provisionally Approved Mix Designs
Road Asphalt Limited
(RAP Mix)

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Filler (passing 75 μ m BS sieve)	Tai Sheng Quarry, China	Crushed rock filler

2. Mix Designs :

Bituminous Material	10mm Wearing Course		20mm Wearing Course		28mm Base Course		37.5mm Base Course	
	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*
HyD Mix No.	10WC/RAL/TS/RAP30/001		20WC/RAL/TS/RAP30/001		28BC/RAL/TS/RAP30/001		40BC/RAL/TS/RAP30/001	
Supplier's Mix No.	10WC/RAL/TS/RAP30/001		20WC/RAL/TS/RAP30/001		28BC/RAL/TS/RAP30/001		40BC/RAL/TS/RAP30/001	
Date of Design	20-Apr-2021		25-Mar-2021		29-Mar-2021		14-Apr-2021	
Approval Date	02-Sep-2021		02-Sep-2021		02-Sep-2021		02-Sep-2021	
Expiry Date	01-Sep-2024		01-Sep-2024		01-Sep-2024		01-Sep-2024	
Binder content (%)	6.1	5.6 - 6.6	5.1	4.6 - 5.6	4.7	4.2 - 5.2	4.1	3.6 - 4.6
B.S. Sieve (mm)	% Passing		% Passing		% Passing		% Passing	
50							100	100
37.5					100	100	100	96 - 100
28			100	100	96	92 - 100	90	83 - 97
20			98	94 - 100	89	82 - 96	78	71 - 85
14	100	100	89	82 - 96	76	69 - 83	69	62 - 76
10	96	92 - 100	81	74 - 88	65	58 - 72	62	55 - 69
5	72	65 - 79	64	57 - 71	46	39 - 53	48	41 - 55
2.36	52	45 - 59	47	40 - 54	35	28 - 42	36	29 - 43
1.18	39	32 - 46	35	28 - 42	25	18 - 32	26	19 - 33
0.600	28	23 - 33	25	20 - 30	18	13 - 23	20	15 - 25
0.300	18	13 - 23	16	11 - 21	12	7 - 17	13	8 - 18
0.150	12	9 - 15	11	8 - 14	8	5 - 11	9	6 - 12
0.075	7.5	5.5 - 9.5 10.5 [#]	6.4	4.4 - 8.4 9.4 [#]	5.9	3.9 - 7.9 8.9 [#]	6.1	4.1 - 8.1 9.1 [#]
	(including 30% RAP)		(including 30% RAP)		(including 30% RAP)		(including 30% RAP)	
	Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	3.3	3.0 - 5.0	4.0	3.0 - 5.0	4.8	3.0 - 5.0	4.8	3.0 - 5.0
Voids in mineral aggregate, VMA (%)	16.5	≥ 16	15.2	≥ 14	14.7	≥ 13	13.5	≥ 12.5
Marshall stability (kN)	15.6	≥ 10	18.5	≥ 10	21.1	≥ 10	19.3	≥ 10
Flow (mm)	3.3	≤ 4.0	2.7	≤ 4.0	3.5	≤ 4.0	3.2	≤ 4.0

* For reference only

[#] The percentage passing the 0.075mm BS sieve shall not deviate from the approved design value by more than 3%.

**Summary of Provisionally Approved Mix Designs
Road Asphalt Limited
(RAP with Lime Mix)**

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Filler (passing 75 μ m BS sieve)	Tai Sheng Quarry, China Hydrated lime - Wealth Bridge Trading Company Limited	Mixture of crushed rock filler and hydrated lime

2. Mix Designs :

Bituminous Material	10mm Wearing Course		20mm Wearing Course		28mm Base Course		37.5mm Base Course		37.5mm Roadbase (recipe mix)	
	HyD Mix No.	10WC/RAL/TS/RAP15/LIME/001	20WC/RAL/TS/RAP15/LIME/001	28BC/RAL/TS/RAP15/LIME/001	40BC/RAL/TS/RAP15/LIME/001	40RB/RAL/TS/RAP15/LIME/001	40BC/RAL/TS/RAP15/LIME/001	40RB/RAL/TS/RAP15/LIME/001	40RB/RAL/TS/RAP15/LIME/001	40RB/RAL/TS/RAP15/LIME/001
Supplier's Mix No.	10WC/RAL/TS/RAP15/LIME/001		20WC/RAL/TS/RAP15/LIME/001		28BC/RAL/TS/RAP15/LIME/001		40BC/RAL/TS/RAP15/LIME/001		40RB/RAL/TS/RAP15/LIME/001	
Date of Design	22-Jul-2021		01-Jun-2021		21-Jun-2021		24-Jun-2021		28-Jun-2021	
Approval Date	02-Sep-2021		02-Sep-2021		02-Sep-2021		02-Sep-2021		--	
Expiry Date	01-Sep-2024		01-Sep-2024		01-Sep-2024		01-Sep-2024		--	
	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Data	GS Requirement*
Binder content (%)	6.0	5.5 - 6.5	5.1	4.6 - 5.6	4.6	4.1 - 5.1	4.1	3.6 - 4.6	3.5	3.0 - 4.0
B.S. Sieve (mm)	% Passing		% Passing		% Passing		% Passing		% Passing	
50							100	100	100	100
37.5					100	100	100	96 - 100	99	90 - 100
28			100	100	96	92 - 100	90	83 - 97	89	70 - 94
20			98	94 - 100	89	82 - 96	78	71 - 85	76	62 - 84
14	100	100	89	82 - 96	76	69 - 83	69	62 - 76	--	--
10	96	92 - 100	81	74 - 88	65	58 - 72	62	55 - 69	59	49 - 67
5	72	65 - 79	64	57 - 71	46	39 - 53	48	41 - 55	44	37 - 55
2.36	52	45 - 59	47	40 - 54	35	28 - 42	36	29 - 43	33	27 - 43
1.18	39	32 - 46	35	28 - 42	26	19 - 33	26	19 - 33	--	--
0.600	28	23 - 33	25	20 - 30	18	13 - 23	20	15 - 25	18	13 - 28
0.300	18	13 - 23	16	11 - 21	12	7 - 17	13	8 - 18	14	7 - 21
0.150	12	9 - 15	11	8 - 14	8	5 - 11	9	6 - 12	--	--
0.075	4.5	2.5 - 6.5 7.5 [#]	5.4	3.4 - 7.4 8.4 [#]	4.5	2.5 - 6.5 7.5 [#]	5.1	3.1 - 7.1 8.1 [#]	6.4	2.0 - 8.0 8.0 [@]
	(including 15% RAP & 1.5% hydrated lime)		(including 15% RAP & 1.5% hydrated lime)		(including 15% RAP & 1.5% hydrated lime)		(including 15% RAP & 1.5% hydrated lime)		(including 15% RAP & 1.5% hydrated lime)	
	Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	4.0	3.0 - 5.0	4.1	3.0 - 5.0	3.3	3.0 - 5.0	4.4	3.0 - 5.0	--	--
Voids in mineral aggregate, VMA (%)	16.9	\geq 16	15.0	\geq 14	13.0	\geq 13	13.0	\geq 12.5	--	--
Marshall stability (kN)	13.9	\geq 10	16.4	\geq 10	17.4	\geq 10	19.0	\geq 10	--	--
Flow (mm)	2.8	\leq 4.0	2.8	\leq 4.0	3.1	\leq 4.0	3.0	\leq 4.0	--	--
Hydrated Lime (%)	1.5	\geq 1.5	1.5	\geq 1.5	1.5	\geq 1.5	1.5	\geq 1.5	1.5	\geq 1.5

* For reference only

[#] The percentage passing the 0.075mm BS sieve shall not deviate from the approved design value by more than 3%.

[@] The percentage passing the 0.075mm BS test sieve shall not exceed 8.0%.

Summary of Provisionally Approved Mix Designs
Road Asphalt Limited
(RAP with Lime Mix)

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)
Filler (passing 75 μ m BS sieve)	Tai Sheng Quarry, China Hydrated lime - Wealth Bridge Trading Company Limited	Mixture of crushed rock filler and hydrated lime

2. Mix Designs :

Bituminous Material	10mm Wearing Course		20mm Wearing Course		28mm Base Course	
	Design Grading	GS Requirement*	Design Grading	GS Requirement*	Design Grading	GS Requirement*
HyD Mix No.	10WC/RAL/TS/RAP30/LIME/001		20WC/RAL/TS/RAP30/LIME/001		28BC/RAL/TS/RAP30/LIME/001	
Supplier's Mix No.	10WC/RAL/TS/RAP30/LIME/001		20WC/RAL/TS/RAP30/LIME/001		28BC/RAL/TS/RAP30/LIME/001	
Date of Design	03-Oct-2022		27-Apr-2022		31-May-2022	
Approval Date	23-Dec-2022		26-May-2022		23-Dec-2022	
Expiry Date	22-Dec-2025		25-May-2025		22-Dec-2025	
Binder content (%)	6.0	5.5 - 6.5	5.0	4.5 - 5.5	4.5	4.0 - 5.0
B.S. Sieve (mm)	% Passing		% Passing		% Passing	
50						
37.5					100	100
28			100	100	96	92 - 100
20			98	94 - 100	89	82 - 96
14	100	100	89	82 - 96	76	69 - 83
10	97	93 - 100	81	74 - 88	65	58 - 72
5	76	69 - 83	64	57 - 71	46	39 - 53
2.36	56	49 - 63	47	40 - 54	35	28 - 42
1.18	42	35 - 49	35	28 - 42	25	18 - 32
0.600	30	25 - 35	25	20 - 30	18	13 - 23
0.300	19	14 - 24	16	11 - 21	12	7 - 17
0.150	12	9 - 15	11	8 - 14	8	5 - 11
0.075	6.6	4.6 - 8.6 9.6 [#]	5.4	3.4 - 7.4 8.4 [#]	5.9	3.9 - 7.9 8.9 [#]
	(including 30% RAP & 1.5% hydrated lime)		(including 30% RAP & 1.5% hydrated lime)		(including 30% RAP & 1.5% hydrated lime)	
	Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	3.7	3.0 - 5.0	3.7	3.0 - 5.0	3.3	3.0 - 5.0
Voids in mineral aggregate, VMA (%)	17.1	\geq 16	14.9	\geq 14	13.5	\geq 13
Marshall stability (kN)	13.8	\geq 10	18.0	\geq 10	18.1	\geq 10
Flow (mm)	3.2	\leq 4.0	2.7	\leq 4.0	3.6	\leq 4.0
Hydrated Lime (%)	1.5	\geq 1.5	1.5	\geq 1.5	1.5	\geq 1.5

* For reference only

[#] The percentage passing the 0.075mm BS sieve shall not deviate from the approved design value by more than 3%.

RAP with Lime Mix

**Summary of Provisionally Approved Mix Designs
Road Asphalt Limited
(Polymer Modified Mix)**

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type			
		10PMFC/RAL/TS/PG/001	CC/RAL/TS/PG/001	10PMSMA/RAL/TS/PG/TOP/001	6PMSMA/RAL/TS/PG/TOP/75/001
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade PG76			
Coarse Aggregate (retained on 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)	Not applicable	Crushed rock (Granite)	
Fine Aggregate (passing 5mm BS sieve)	Tai Sheng Quarry, China	Crushed rock (Granite)		Crushed rock (Granite)	
Filler (passing 75µm BS sieve)	Tai Sheng Quarry, China Hydrated lime - Wealth Bridge Trading Company Limited	Mixture of crushed rock filler and hydrated lime			
Fibre	CFE GmbH & Co. KG (Germany)	Not applicable		Cellulose Fibre	

2. Mix Designs :

Bituminous Material	10mm Polymer Modified Friction Course		3.35mm Polymer Modified Cushion Course		10mm Polymer Modified Stone Mastic Asphalt		6mm Polymer Modified Stone Mastic Asphalt	
HyD Mix No.	10PMFC/RAL/TS/PG/001		CC/RAL/TS/PG/001		10PMSMA/RAL/TS/PG/TOP/001		6PMSMA/RAL/TS/PG/TOP/75/001	
Supplier's Mix No.	10PMFC/RAL/TS/PG/001		CC/RAL/TS/PG/001		10PMSMA/RAL/TS/PG/TOP/001		6PMSMA/RAL/TS/PG/TOP/75/001	
Date of Design	29-Jan-2021		19-Mar-2021		16-Mar-2021		09-Aug-2021	
Approval Date	17-Aug-2021		17-Aug-2021		17-Aug-2021		24-Sep-2021	
Expiry Date	16-Aug-2024		16-Aug-2024		16-Aug-2024		23-Sep-2024	
	Design Grading	PS Requirement*	Design Grading	PS Requirement*	Design grading	PS Requirement*	Design grading	PS Requirement*
Polymer modified binder content (%)	5.6	5.1 - 6.1	9.5	9.0 - 10.0	6.2	5.5 - 6.5	6.0	5.3 - 6.3
B.S. Sieve (mm)	% passing		% passing		% Passing		% Passing	
14	100	100			100	100	100	100
10	95	91 - 99			96	92 - 100	99	95 - 100
6.3	--	--	100	100	--	--	--	--
5	23	16 - 30	--	--	31	24 - 38	83	76 - 90
3.35	--	--	95	91 - 100	--	--	--	--
2.36	14	7 - 21	--	--	22	15 - 29	25	18 - 32
1.18	--	--	63	56 - 70	--	--	--	--
0.300	--	--	31	26 - 36	--	--	--	--
0.075	4.0	2.0 - 6.0	15.0	13.0 - 17.0	11.9	9.9 - 13.9	10.0	8.0 - 12.0
		7.0 [#]		18.0 [#]		14.9 [#]		13.0 [#]
	(including 2% hydrated lime)		(including 2% hydrated lime)		(including 2% hydrated lime)		(including 2% hydrated lime)	
	Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	20.5	≥ 20	--	--	4.4	3.5 - 4.5	8.5	7.0 - 10.0
Voids in mineral aggregate, VMA (%)	--	--	--	--	17.1	≥ 17	21.1	≥ 17
Marshall stability (kN)	--	--	--	--	9.7	≥ 6	8.8	≥ 6
Binder draindown (%)	--	--	--	--	0.01	≤ 0.3	0.02	≤ 0.3
Marshall quotient (kN/mm)	--	--	0.8	0.7 - 1.2	--	--	--	--
Binder drainage test	Pass	Tmax > Binder content	--	--	--	--	--	--

* For reference only

[#] The percentage passing the 0.075mm BS sieve shall not deviate from the approved design value by more than 3%.