Updated as at 24 July 2026

Index of Provisionally Approved Mix Designs
Excel Asphalt Limited

I. Normal Mix

Bituminous Material	HyD Mix No.	Supplier's Mix No.	Date of Design	Approval Date	Expiry Date
37.5mm Roadbase (recipe mix)	40RB/EXC/LT/001	40RB/EXC/LT/001	03-May-2016	---	--

II. 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/EXC/LT/RAP20/003	10WC/EXC/LT/RAP20/003	18-Jul-2023	25-Oct-2023	24-Oct-2026
20mm Wearing Course	20WC/EXC/LT/RAP20/003	20WC/EXC/LT/RAP20/003	11-May-2023	25-Oct-2023	24-Oct-2026
28mm Base Course	28BC/EXC/LT/RAP20/003	28BC/EXC/LT/RAP20/003	26-Jun-2023	25-Oct-2023	24-Oct-2026
37.5mm Base Course	40BC/EXC/LT/RAP20/003	40BC/EXC/LT/RAP20/003	14-Aug-2023	20-Oct-2023	19-Oct-2026
37.5mm Roadbase (recipe mix)	40RB/EXC/LT/RAP15/001	40RB/EXC/LT/RAP15/001	14-Apr-2016	07-Feb-2017	--

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/EXC/LT/PG/003	10PMFC/EXC/LT/PG/003	26-Jan-2023	26-Sep-2023	25-Sep-2026
3.35mm Polymer Modified Cushion Course	CC/EXC/LT/PG/002	CC/EXC/LT/PG/002	21-Aug-2023	20-Oct-2023	19-Oct-2026
10mm Polymer Modified Stone Mastic Asphalt	10PMSMA/EXC/LT/PG/ITE/003	10PMSMA/EXC/LT/PG/ITE/003	20-Mar-2023	26-Sep-2023	25-Sep-2026

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

Updated as at 24 July 2026

Summary of Provisionally Approved Mix Designs
Excel Asphalt Limited
(Normal Mix)

1. Source and Type of Constituent Materials :

Constituent Material	**Source**	**Type**
Bitumen	DongGuan TaiHe Asphalt Co., Ltd.	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)
Filler (passing 75 μm BS sieve)	Lam Tei Quarry	Crushed rock filler

2. Mix Designs :

Bituminous Material	**37.5mm Roadbase (recipe mix)**	
HyD Mix No.	40RB/EXC/LT/001	
Supplier's Mix No.	40RB/EXC/LT/001	
Date of Design	03-May-2016	
Approval Date	---	
Expiry Date	--	
	Design Data	GS Requirement*
Binder content (%)	3.5	3.0 - 4.0
B.S. Sieve (mm)	% Passing	
50	100	100
37.5	99	90 - 100
28	84	70 - 94
20	72	62 - 84
14	--	--
10	58	49 - 67
5	47	37 - 55
2.36	34	27 - 43
1.18	--	--
0.60	18	13 - 28
0.30	13	7 - 21
0.15	--	--
0.075	5.4	2 - 8 8.0[@]
	Marshall Properties	
Air voids in mix, VIM (%)	--	--
Voids in mineral aggregate, VMA (%)	--	--
Marshall stability (kN)	--	--
Flow (mm)	--	--

* For reference only

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

Updated as at 24 July 2026

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

1. Source and Type of Constituent Materials :

Constituent Material	**Source**	**Type**
Bitumen	DongGuan TaiHe Asphalt Co., Ltd.	Grade 60/70 pen
Coarse Aggregate (retained on 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)
Filler (passing 75 μm BS sieve)	Lam Tei Quarry	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)**	
HyD Mix No.	10WC/EXC/LT/RAP20/003		20WC/EXC/LT/RAP20/003		28BC/EXC/LT/RAP20/003		40BC/EXC/LT/RAP20/003		40RB/EXC/LT/RAP15/001	
Supplier's Mix No.	10WC/EXC/LT/RAP20/003		20WC/EXC/LT/RAP20/003		28BC/EXC/LT/RAP20/003		40BC/EXC/LT/RAP20/003		40RB/EXC/LT/RAP15/001	
Date of Design	18-Jul-2023		11-May-2023		26-Jun-2023		14-Aug-2023		14-Apr-2016	
Approval Date	25-Oct-2023		25-Oct-2023		25-Oct-2023		20-Oct-2023		07-Feb-2017	
Expiry Date	24-Oct-2026		24-Oct-2026		24-Oct-2026		19-Oct-2026		--	
	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	5.0	4.5 - 5.5	4.5	4.0 - 5.0	4.2	3.7 - 4.7	3.5	3.0 - 4.0
B.S. Sieve (mm)	% Passing		% Passing		% Passing		% Passing		% Passing	
50							100	100	100	100
37.5					100	100	99	95 - 100	99	90 - 100
28			100	100	97	93 - 100	92	85 - 99	84	70 - 94
20			97	93 - 100	90	83 - 97	79	72 - 86	72	62 - 84
14	100	100	86	79 - 93	76	69 - 83	67	60 - 74	--	--
10	98	94 - 100	79	72 - 86	67	60 - 74	60	53 - 67	60	49 - 67
5	70	63 - 77	68	61 - 75	44	37 - 51	47	40 - 54	47	37 - 55
2.36	47	40 - 54	47	40 - 54	29	22 - 36	32	25 - 39	34	27 - 43
1.18	34	27 - 41	34	27 - 41	21	14 - 28	23	16 - 30	--	--
0.60	24	19 - 29	24	19 - 29	15	10 - 20	16	11 - 21	18	13 - 28
0.30	17	12 - 22	17	12 - 22	11	6 - 16	12	7 - 17	13	7 - 21
0.15	12	9 - 15	12	9 - 15	8	5 - 11	8	5 - 11	--	--
0.075	7.1	5.1 - 9.1 10.1#	7.0	5.0 - 9.0 10.0#	4.9	2.9 - 6.9 7.9#	5.3	3.3 - 7.3 8.3#	5.6	2.0 - 8.0 8.0@
	(including 20% RAP)		(including 20% RAP)		(including 20% RAP)		(including 20% RAP)		(including 15% RAP)	
	Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	3.3	3.0 - 5.0	4.6	3.0 - 5.0	4.9	3.0 - 5.0	4.8	3.0 - 5.0	--	--
Voids in mineral aggregate, VMA (%)	16.6	≧16	15.5	≧14	14.8	≧13	14.0	≧12.5	--	--
Marshall stability (kN)	13.7	≧10	21.2	≧10	16.0	≧10	16.1	≧10	--	--
Flow (mm)	2.9	≦4.0	3.2	≦4.0	2.7	≦4.0	2.6	≦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 precentage passing the 0.075mm BS test sieve shall not exceed 8.0%.

Updated as at 24 July 2026

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

1. Source and Type of Constituent Materials :

Constituent Material	Source	Type		
		10PMFC/EXC/LT/PG/003	CC/EXC/LT/PG/002	10PMSMA/EXC/LT/PG/ITE/003
Bitumen	Dongguan Taihe Asphalt Products Co., Ltd	Grade PG76		
Coarse Aggregate (retained on 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)	Not applicable	Crushed rock (Granite)
Fine Aggregate (passing 5mm BS sieve)	Lam Tei Quarry	Crushed rock (Granite)		
Filler (passing 75 μm BS sieve)	Lam Tei Quarry Hydrated lime - Man Lung Fat Trading (Shenzhen) Ltd.	Mixture of crushed rock filler and hydrated lime		
Fibre	Asia Fiber Company Ltd (China)	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	
HyD Mix No.	10PMFC/EXC/LT/PG/003		CC/EXC/LT/PG/002		10PMSMA/EXC/LT/PG/ITE/003	
Supplier's Mix No.	10PMFC/EXC/LT/PG/003		CC/EXC/LT/PG/002		10PMSMA/EXC/LT/PG/ITE/003	
Date of Design	26-Jan-2023		21-Aug-2023		20-Mar-2023	
Approval Date	26-Sep-2023		20-Oct-2023		26-Sep-2023	
Expiry Date	25-Sep-2026		19-Oct-2026		25-Sep-2026	
	Design Grading	PS Requirement*	Design grading	PS Requirement*	Design grading	PS Requirement*
Binder content (%)	5.5	5.0 - 6.0	9.5	9.0 - 10.0	6.0	5.3 - 6.3
B.S. Sieve (mm)	% passing		% passing		% Passing	
14	100	100			100	100
10	93	89 - 97			93	89 - 97
6.3	--	--	100	100	--	--
5	22	15 - 29	--	--	29	22 - 36
3.35	--	--	95	91 - 99	--	--
2.36	13	6 - 20	--	--	21	14 - 28
1.18	--	--	57	50 - 64	--	--
0.30	--	--	30	25 - 35	--	--
0.075	3.8	1.8 - 5.8 6.8#	14.0	12.0 - 16.0 17.0#	9.9	7.9 - 11.9 12.9#
	(including 1.5% hydrated lime)		(including 2% hydrated lime)		(including 2% hydrated lime)	
	Marshall Properties		Marshall Properties		Marshall Properties	
Air voids in mix, VIM (%)	20.5	≧20	--	--	4.5	3.5 - 4.5
Voids in mineral aggregate, VMA (%)	--	--	--	--	17.6	≧17
Marshall stability (kN)	--	--	--	--	9.3	≧6
Binder draindown (%)	--	--	--	--	0.1	≦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%.