

# advisory note 7

## Guide to the heating and storage of binders for sprayed sealing

This is a general guide to heating temperatures and storage times of bituminous binders used in sprayed sealing applications. Although the information provided in the table was correct at the time of publication, users of bituminous products are advised to contact suppliers for current information and Safety Data Sheets prior to using any particular product.

BINDER SUPPLIER	SEALING BINDER	Austrroads binder class (AG:PT/T190)	Recommended spraying temperature range (°C) (Note 1)	Recommended maximum holding time at spraying temperature (Notes 2 & 3)	Recommended medium-term storage temperature (°C)	Recommended medium-term storage time (Notes 2 & 3)
<b>PAVING GRADE BITUMEN</b> AS2008 bitumen grades	Class 170		175 - 185	7 days	130 - 150	30 days
	Class 240		175 - 185	7 days	130 - 150	30 days
	Class 320		175 - 185	7 days	130 - 150	30 days
	Multigrade 500		175 - 185	3 days	120 - 140	14 days
<b>MODIFIED SPRAYED SEALING BINDERS</b>						
<b>Bituminous Products</b>	Bitulastic S10E	S10E	180 - 190	2 days	130 - 140	14 days
	Bitulastic S15E	S15E	180 - 190	2 days	130 - 140	14 days
	Bitulastic S20E	S20E	180 - 190	2 days	130 - 140	14 days
	Bitulastic S25E	S25E	180 - 190	2 days	130 - 140	14 days
	Bitulastic S35E	S35E	180 - 190	2 days	130 - 140	14 days
	Bitulastic S45R	S45R	180 - 200	3 days	140 - 160	14 days
<b>Downer</b>	Downer S10E	S10E	180 - 190	1 day	130 - 150	5 - 7 days
	Downer S15E	S15E	180 - 190	1 day	130 - 150	5 - 7 days
	Downer S20E	S20E	180 - 190	1 day	130 - 150	5 - 7 days
	Downer S25E	S25E	180 - 190	1 day	130 - 150	5 - 7 days
	Downer S35E	S35E	180 - 190	1 day	130 - 150	5 - 7 days
	Downer S45R	S45R	190 - 200	1 day	140 - 160	5 - 7 days
<b>Fulton Hogan Industries</b>	SPRAYflex S5E		175 - 185	2 days	130 - 150	7 - 5 days
	SPRAYflex S10E	S10E	175 - 185	2 days	130 - 150	7 - 5 days
	SPRAYflex S15E	S15E	180 - 190	2 days	130 - 150	7 - 5 days
	SPRAYflex S20E	S20E	180 - 190	2 days	130 - 150	7 - 5 days
	SPRAYflex S25E	S25E	185 - 195	2 days	140 - 160	7 - 5 days
	SPRAYflex S30E		185 - 195	2 days	140 - 160	7 - 5 days
	SPRAYflex S35E	S35E	180 - 190	2 days	135 - 160	7 - 5 days
	SPRAYflex S0.3B		180 - 195	2 days	135 - 160	7 - 20 days
	SPRAYflex S45R	S45R	185 - 200	3 days (Note 4)	140 - 160	10-7 days (Note 4)
	SPRAYflex S15RF	S15RF	190 - 200	3 days	140 - 160	7 - 5 days (Note 4)
SPRAYflex S18RF	S18RF	190 - 200	3 days	140 - 160	7 - 5 days (Note 4)	

MODIFIED SPRAYED SEALING BINDERS CONTINUED

BINDER SUPPLIER	SEALING BINDER	Austrroads binder class (AG:PT/T190)	Recommended spraying temperature range (°C) (Note 1)	Recommended maximum holding time at spraying temperature (Notes 2 & 3)	Recommended medium-term storage temperature (°C)	Recommended medium-term storage time (Notes 2 & 3)
Puma Bitumen	OLEXOBIT SP		180 - 190	2 days	120 - 160	14 - 7 days
	OLEXOBIT HSS		180 - 190	2 days	120 - 160	14 - 7 days
	OLEXOBIT SAM	S35E	180 - 190	2 days	120 - 160	14 - 7 days
	OLEXOBIT MAX	S15E	185 - 190	1 day	120 - 160	14 - 7 days
	OLEXOBIT S30	S10E	180 - 190	1 day	120 - 140	14 - 7 days
	OLEXOBIT S45	S20E	180 - 190	1 day	120 - 140	14 - 7 days
	OLEXOBIT S60	S25E	180 - 190	1 day	120 - 140	14 - 7 days
	OLEXOBIT CR45	S45R	185 - 195	1 day (Note 4)	120 - 140	14-7 days (Note 4)
SAMI Bitumen Technologies	SAMlseal S10E	S10E	175 - 185	2 days	120 - 140	14 days
	SAMlseal S15E	S15E	175 - 185	2 days	120 - 140	14 days
	SAMlseal S20E	S20E	175 - 185	2 days	120 - 140	14 days
	SAMlseal S35E	S35E	175 - 185	7 days	120 - 160	30 days
	SAMlseal S45R	S45R	185 - 195	3 days (Note 4)	120 - 140	14 days (Note 4)
	Polyseal HSS	S35E	175 - 185	7 days	120 - 160	30 days
	Polyseal SAM	S35E	175 - 185	7 days	120 - 160	30 days
Spray Line	15% Crumb Rubber	S15RF	180 - 190	5 days	130 - 150	10 days
	18% Crumb Rubber	S18RF	180 - 190	5 days	130 - 150	10 days
Viva Energy	Viva Bitumen S5E		175 - 190	1 day	140 - 160	14 - 7 days
	Viva Bitumen S10E	S10E	180 - 190	1 day	140 - 160	10 - 7 days
	Viva Bitumen S15E	S15E	180 - 190	1 day	140 - 160	10 - 7 days
	Viva Bitumen S20E	S20E	180 - 190	1 day	140 - 160	10 - 7 days
	Viva Bitumen S25E	S25E	180 - 195	1 day	140 - 160	10 - 7 days
	Viva Bitumen S35E	S35E	180 - 190	1 day	140 - 160	10 - 7 days
	Viva Bitumen 5 Parts		180 - 190	1 - 3 days	135 - 150	14 - 7 days (Note 4)
	Viva Bitumen 10 Parts		180 - 190	1 - 3 days	140 - 160	14 - 7 days (Note 4)
	Viva Bitumen 15 Parts		185 - 195	1 - 3 days	140 - 160	14 - 7 days (Note 4)
Viva Bitumen S45R	S45R	185 - 195	1 - 3 days	140 - 160	14 - 7 days (Note 4)	

**Notes:**

1. Adjustment of the spraying temperature may be required to allow for prevailing conditions, such as pavement temperature and wind speed, but should not exceed the recommended maximum spraying temperature. The listed temperature ranges apply to the binder before the addition of cutter or additive. For further information, refer to the Austrroads Bituminous Materials Safety Guide.
2. All polymer modified binders must be stirred prior to use and regularly circulated during storage due to the possibility of polymer segregation. Refer to binder manufacturer/supplier for advice on storage of binders for periods longer than shown.
3. Longer storage times apply at lower storage temperatures, shorter storage times apply at higher storage temperatures.
4. These products require continuous agitation during storage.

# Guide to the heating and storage of binders for asphalt manufacture

This is a general guide to heating temperatures and storage times of bituminous binders used in asphalt applications. Although the information provided in the table was correct at the time of publication, users of bituminous products are advised to contact suppliers for current information and Safety Data Sheets prior to using any particular product.

BINDER SUPPLIER	ASPHALT BINDER	Austrroads binder class (AG:PT/T190)	Recommended mixing temperature range (°C) (Note 1)	Recommended maximum holding time at mixing temperature (Notes 2 & 3)	Recommended medium-term storage temperature (°C)	Recommended medium-term storage time (Notes 2 & 3)	
<b>PAVING GRADE BITUMEN</b> <b>AS2008 bitumen grades</b>	Class 170		140 - 165	14 days	130 - 150	30 days	
	Class 240		140 - 165	14 days	130 - 150	30 days	
	Class 320		150 - 170	14 days	130 - 150	30 days	
	Class 450		150 - 175	14 days	130 - 150	30 days	
	Class 600		160 - 180	14 days	130 - 150	30 days	
	Multigrade 500		140 - 165	5 days	120 - 140	14 days	
	Multigrade 1000		150 - 175	5 days	120 - 140	14 days	
<b>HARD PAVING GRADE BITUMEN</b> <b>AAPA EME2 model specification</b>	15/25 Penetration grade		170 - 190	7 days	120 - 140	14 days	
	10/20 Penetration grade		170 - 190	7 days	120 - 140	14 days	
<b>MODIFIED ASPHALT BINDERS</b>	<b>Bitulastic Products</b>	Bitulastic A35P	A35P	165 - 175	4 days	140 - 150	30 days
		Bitulastic A25E	A25E	165 - 175	4 days	130 - 140	14 days
		Bitulastic A20E	A20E	165 - 175	4 days	130 - 140	14 days
		Bitulastic A15E	A15E	165 - 175	4 days	130 - 140	14 days
		Bitulastic A10E	A10E	165 - 175	4 days	130 - 140	14 days
		Bitulastic Aerobind	A25E	165 - 175	4 days	130 - 140	14 days
	<b>Downer</b>	Downer A10E	A10E	160 - 175	2 days	120 - 140	14 - 7 days
		Downer A15E	A15E	160 - 175	2 days	120 - 140	14 - 7 days
		Downer A20E	A20E	160 - 175	2 days	120 - 140	14 - 7 days
		Downer A25E	A25E	160 - 175	4 days	120 - 140	14 - 7 days
		Downer A35P	A35P	160 - 175	4 days	140 - 150	14 - 7 days
	<b>Fulton Hogan Industries</b>	PAVEflex A5E		165 - 180	2 days	130 - 150	10 days
		PAVEflex A10E	A10E	165 - 180	2 days	130 - 150	10 days
		PAVEflex A15E	A15E	165 - 180	2 days	130 - 150	10 days
		PAVEflex A20E	A20E	160 - 180	3 days	130 - 150	10 days
		PAVEflex A25E	A25E	160 - 180	7 days	130 - 150	10 days
		PAVEflex A35P	A35P	160 - 180	7 days	130 - 150	10 days

**MODIFIED ASPHALT BINDERS CONTINUED**

BINDER SUPPLIER	ASPHALT BINDER	Austroads binder class (AG:PT/T190)	Recommended mixing temperature range (°C) (Note 1)	Recommended maximum holding time at mixing temperature (Notes 2 & 3)	Recommended medium-term storage temperature (°C)	Recommended medium-term storage time (Notes 2 & 3)
<b>Puma Bitumen</b>	OLEXOBIT AOG	A25E	145 - 155	7 days	120 - 150	14 - 7 days
	OLEXOBIT AB4	A20E	155 - 165	2 days	120 - 140	14 - 7 days
	OLEXOBIT AB5	A15E	160 - 175	2 days	120 - 140	14 - 7 days
	OLEXOBIT AB6	A10E	160 - 175	2 days	120 - 140	14 - 7 days
	OLEXOBIT SMA+	A25E	145 - 160	7 days	120 - 150	14 - 7 days
	OLEXOBIT A35P	A35P	160 - 175	4 days	140 - 150	14 - 7 days
<b>SAMI Bitumen Technologies</b>	SAMIfalt A10E	A10E	165 - 175	4 days	120 - 140	14 days
	SAMIfalt A15E	A15E	165 - 175	4 days	120 - 140	14 days
	SAMIfalt A20E	A20E	160 - 175	4 days	120 - 140	14 days
	SAMIfalt A25E	A25E	160 - 175	7 days	120 - 140	14 days
	SAMIfalt B380	A25E	160 - 175	7 days	120 - 140	14 days
	SAMIfalt A35P	A35P	160 - 175	7 days	120 - 140	14 days
<b>Viva Energy</b>	Viva Bitumen A10E	A10E	165 - 180	4 - 3 days	140 - 160	10 - 7 days
	Viva Bitumen A15E	A15E	165 - 180	4 - 3 days	140 - 160	10 - 7 days
	Viva Bitumen A20E	A20E	160 - 175	4 - 3 days	140 - 160	10 - 7 days
	Viva Bitumen A25E	A25E	150 - 165	4 - 3 days	140 - 160	10 - 7 days
	Viva Bitumen A35P	A35P	155 - 170	5 days	140 - 160	10 - 7 days

**Notes:**

1. Adjustment of the spraying temperature may be required to allow for prevailing conditions, such as pavement temperature and wind speed, but should not exceed the recommended maximum spraying temperature. The listed temperature ranges apply to the binder before the addition of cutter or additive. For further information, refer to the Austroads Bituminous Materials Safety Guide.
2. All polymer modified binders must be stirred prior to use and regularly circulated during storage due to the possibility of polymer segregation. Refer to binder manufacturer/supplier for advice on storage of binders for periods longer than shown.
3. Longer storage times apply at lower storage temperatures, shorter storage times apply at higher storage temperatures.

**Disclaimer:**

Although the information contained in this Advisory Note is believed to be fundamentally correct, the Australian Asphalt Pavement Association does not accept any contractual tortious or other form of liability for its contents or for any consequences arising from its use. Advice should be sought from suppliers prior to handling, applying or storing products outside the recommended ranges. *Date of Issue: 21 December 2016*

---

**Australian Asphalt Pavement Association**  
**2/20 Sabre Drive Port Melbourne 3207**  
**Tel: (03) 8416 4500      E-mail: info@aapa.asn.au**  
**Web: www.aapa.asn.au**

---