



**COLWAX™**

**Fischer Tropsch Wax Modified Bitumen**

Product Data Sheet 2012/08

## DESCRIPTION

**COLWAX™** is manufactured from 50/70 penetration grade bitumen modified with a long chain aliphatic hydrocarbon (Fischer Tropsch) wax.

## USES

**COLWAX™** is used as a binder in warm mix asphalt, facilitating a reduction in manufacturing and paving temperatures of up to 30°C. In addition, hot mix layers prepared with **COLWAX™** exhibit very high resistance to deformation. Asphalt mixes prepared with **COLWAX™** has also proved to poses fuel resistance characteristics.

## PROPERTIES

**COLWAX™** binder has improved rheological binder properties when compared to conventional hot binders across the in-service temperature range. At temperatures exceeding 100°C, the binder has a lower viscosity than that of conventional penetration grade bitumen, whilst the binder's viscosity increases significantly relative to the viscosity of penetration grade bitumen at temperatures below 100°C.

## SPECIFICATIONS

**COLWAX™** conforms to the A-H2 specification for modified binders for use in hotmix asphalt applications.

BINDER PROPERTIES	REQUIREMENT		TEST METHOD
	Min	Max	
Softening point, °C	70	90	ASTM D36
Dynamic viscosity @ 165° C, Pa·s	-	0.30	ASTM D4402
Stability @ 160°C	-	5	MB-6
Flash point, °C	230	-	ASTM D93
PROPERTIES AFTER RTFOT			
Difference in softening point, °C	-2	+8	ASTM D6
Mass change, %	-	1.0	MB-3

## DIRECTIONS FOR USE

Recommended storage and handling criteria for **COLWAX™** are as follows:

Asphalt mixing temperature	110 - 120°C	
Asphalt compaction temperature	100 - 110°C	
Maximum storage temperature	< 24 hours	> 3 days
	175°C	160°C

Note: It is important to circulate binder during heating as prolonged intense heating will cause localised overheating that may result in carbonisation of the binder on the flues. The aforementioned can results in polymer degradation which could lead to a reduction in the binder softening point. Every attempt should be made to reduce the binder temperature during transportation and storage.

### Head Office

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