

Adocoat C40B4 Tack Coat

Technical Specification

General

C40B4 (K1-40) is a Conventional Grade cationic bitumen emulsion which complies with grade K1-40 of BS 434-1 and grade C40B4 of BS EN 13808. It has been designed as a tack coat for bitumen based surfacing products.

C40B5 is manufactured by Adomast Manufacturing within Management Systems accredited to BS EN ISO 9001:2000

Properties

C40B4 achieves Conventional Grade classification in discriminatory tests as defined by Specification for Highway Works Clause 920 and has been used successfully as a Conventional Grade tack coat emulsion since the 1980's.

Surface dressing design

The design and implementation of surfacing using C40B4 should be carried out in accordance with BS 594, BS4987 and Design Manual for Roads and Bridges Volume 7 Section 5 Part 2: HD 37/99. In addition, C40B5 is specified as a permitted option for use as part of certain Thin Surface Course Systems to SHW Clause 942. For use in these applications, reference should be made to the relevant BBA HAPAS certification.

Health & Safety

C40B4 is not classified as hazardous to health or the environment. For further information refer to our relevant Material Safety Data Sheet or contact our Safety, Health and Environment Department.

Supply

Availability, prices and conditions of sale are available from our Bitumen Products Sales Department.

Technical Service

Further technical information and advice is available from our Technical Department.

Emulsion Specification to BS EN 13808			Emulsion As Supplied
Binder Content	BS EN 1428		38 – 42 %
Efflux Time (4mm at 40 °C)	BS EN 12846		≤ 20 s
Breaking Value	BS EN 13075-1		70 - 130
Adhesivity	BS EN 13614		NPD
Typical Binder Properties		After recovery to BS EN 13074	After aging to prEN 14769
Penetration 25 °C / 100 g / 5 s	BS EN 1426	160 dmm	53 dmm
Penetration 5 °C / 200 g / 60 s	BS EN 1426	100 dmm	43 dmm
Softening Point	BS EN 1426	40 °C	50 °C
Typical Binder Rheology to prEN 14770 (SHW Clause 928)		After recovery to BS EN 13074	After aging to prEN 14769
High Equi-stiffness Temperature	T _{2kPa}	48 °C	62 °C
Low Equi-stiffness Temperature	T _{2MPa}	- 5 °C	10 °C
Complex Stiffness Modulus at 5 °C	G* _(5 °C)	7.55 x 10 ⁵ Pa	3.50 x 10 ⁶ Pa
Complex Stiffness Modulus at 25 °C	G* _(pen)	7.00 x 10 ⁴ Pa	3.34 x 10 ⁵ Pa
Complex Stiffness Modulus at 60 °C	G* _(60 °C)	4.79 x 10 ² Pa	2.32 x 10 ³ Pa
Phase Angle at 5 °C	δ _(low)	70.1 °	55.1 °
Phase Angle at 60 °C	δ _(high)	87.9 °	83.2 °
Typical Binder Cohesion to BS EN 13588 (SHW Clause 939)		After recovery to BS EN 13074	After aging to prEN 14769
Maximum Cohesion	C _M	0.80 J cm ⁻²	0.80 J cm ⁻²
Temperature of Maximum Cohesion	T _M	38 °C	45 °C
Temperature Range for Cohesion Value > 0.5 Jcm ⁻²	-	15 °C	20 °C