

10203

Systems: Footwear

10203 is a polyurethane microcellular foam system designed for Insole (sockliner).

APPLICATIONS

- Insole or sockliner (open-pouring)

TYPICAL PROPERTIES

10203 system consists of 3 components.

Materials	Typical Properties	Method	Unit	Value
A5902	Viscosity (@60° C)	QC0-I002-T025	cps	approx 1,100
B9802	Isocyanate content		(%NCO)	21.1 – 21.6
	Viscosity (@60° C)	QC0-I002-T025	cps	≈ 170
C5905	Mixture of catalyst, chain extenders, cell regulators and foaming agent.			

PREPARATION OF PRODUCTS

A5902 must be warmed at 45-50°C for 12 - 24 hours before mixing with C5905 (25 - 30°C) for about 15 minutes. B9802 should be warmed at 40 - 45°C for 12 - 24 hours prior to its use. It has a clear to turbid solution appearance. The temperature of components in the production tanks should be 40 - 50°C to ensure good processing.

MIXING RATIO BY WEIGHT

Materials	A : C Ratio (pbw)	Value
A5902	100.00	(20.0 Kg)
C5905	3.97	(0.795 Kg)

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FOAMING FORMULATION ON MACHINE

100 pbw The above mixture at working temperature 40±5°C
 50 - 54 pbw Component B 9802 at working temperature 35±5°C
 (The optimum ratio of Component B can be slightly different as per working condition.)

FOAMING CHARACTERISTICS (at 40°C)

Foam Properties	Unit	Hand mix method	Machine mix method
Cream time	secs., approx.	11 – 13	6 – 7
Gel time	secs., approx.	25	17 – 25
Tack free time	secs., approx.	50	35
Demold time	approx.	-	Min. 4 – 6
Free rise density	kg/m ³ , approx.	150 – 160	155 – 170

TYPICAL PROPERTIES OF FINISHED PRODUCTS

Physical Properties	Unit	Value
Mold density*	kg/m ³	340 – 380
Hardness	Shore C, approx.	33 ± 5
Tensile strength	kg/cm ² , approx	20
Elongation at break	%	> 300
Tear strength	kg/cm ² , approx	8
Tensile strength retention after hydrolysis	70°C / 7 days, 100% RH ,%	> 70
Tear strength retention after hydrolysis	70°C / 7 days, 100% RH ,%	> 70

* Mold density was depended on mold design

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PACKAGE

Material can be supplied in 200-lit drum or 20 litre can.

STORAGE AND HANDLING

The components are sensitive to moisture and should therefore at all times be kept in sealed drums. Storage temperatures should be within the range 20-25°C to ensure maximum shelf life. The best condition of B9802 can be use up to 6 months, since the high humidity and warm condition such as Thailand the time consumption within 3 months is recommended.

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