

10113

Systems : Footwear

10113 is a polyurethane microcellular foam system designed for Fashion shoe sole.

APPLICATIONS

- Fashion shoe sole (open-pouring)

TYPICAL PROPERTIES

10113 systems consist of 3-5 components.

Materials	Property	Unit	Value
A5201	Viscosity	(25°C), cps	Approx 1,100
B9802	Isocyanate content Viscosity	(% by weight) (60°C), cps	21.1 – 21.6 ≈ 170
C5201	Mixture of catalyst, chain extenders, cell regulators and foaming agent.		
D5002H	Hardener		
D5003S	Silicone Surfactant		

PREPARATION OF PRODUCTS

A5201 must be warmed at 45-50 °C for 12-24 hours before mixing with C5201 (25-30°C) for about 15 minutes.

B9802 should be warmed at 45-50 °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	Ratio (pbw)
A5201	100.00
C5201	23.08

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FOAMING FORMULATION ON MACHINE

100 pbw the above mixture (A+C) at working temperature 40±5°C
 126-130 pbw B9802 at working temperature 45±5°C (The optimum ratio of Component B can be slightly different as per working condition)

FOAMING CHARACTERISTICS (at 40°C)

Foam Properties	Unit	Handmix method
Cream time	secs., approx.	10 – 12
Gel time	secs., approx.	35
Tack free time	secs., approx.	50
Demold time	Min., approx.	6 – 8
Free rise density	Kg/m ³ , approx.	220

TYPICAL PROPERTIES OF FINISHED PRODUCTS

Physical Properties	Unit	Value
Molded density	kg/m ³	400 – 430
Hardness	Shore C, approx.	75 ± 3

ADJUST MIXING RATIO TO VARY SOLE HARDNESS

Properties	Value	Value	Value
Molded density g/cc about	0.40 – 0.45	0.40 – 0.45	0.40 – 0.45
Hardness shore C	75 – 80	80 – 85	85 – 90
(depend on processing and mold)			
Weight of A5201, kg.	20	20	20
Weight of C5201, kg.	4.6	4.6	5.0
Weight of D5002H, kg.	-	1.0	1.0
Weight of D5003S, kg.	-	0.2 – 0.4	0.2 – 0.6
Polyol : Isocyanate (B9802) Ratio	100 : 126	100 : 142	100 : 155

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PACKAGE

Material can be supplied in 200 litre 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. B9802 at the best condition 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.

NOTICE: The information presented herein, while not guaranteed, is, to the best of our knowledge true and accurate. No warranty or guarantee, express or implied, is made regarding the performance or stability of any product, since the manner of use and conditions of storage and *handling* are beyond our control.

REV. 20110601