



TECHNICAL DATASHEET

AS-1104 / AS-2101 SINGLE DENSITY SAFETY SHOES AND HIGH FLEX CASUAL SHOES

FORMULATION IN POLYOL		SYSTEM DETAILS	
POLYOL AS-1104	100	POLYOL (A)	PREPOLYMER (B)
CROSSLINKER FOR MIDSOLE : AS-3104 (in %)	10.90	AS-1104	AS-2101

PHYSICAL PARAMETERS

MELTING TEMPERATURE	°C	80	80
SOLID MATERIAL MELTING TIME	hrs	20-24	20-24
SEMI-SOLID MATERIAL MELTING TIME	hrs	12	12
VISCOSITY AT 40°C (POLYOL + CROSSLINKER)	cps	2400 ± 200	500 ± 50
SPECIFIC GRAVITY AT WORK TEMPERATURE	g/cm ³	1.17	1.19

REACTION PARAMETERS

		SINGLE DENSITY
MIXING RATIO	P+C / I	100/85
WORKING TEMPERATURE	°C	38-42
CREAM TIME	sec.	6-7
THREAD TIME	sec.	35-37
PINCH TIME	sec.	45-50
DEMOULDING TIME	min.	3-3.5
MOULD TEMPERATURE	°C	55-60
FREE RISE DENSITY	g/cm ³	0.26-0.29

MECHANICAL PROPERTIES OF FOAM SPECIMEN

SPECIFIC GRAVITY	UNI 10902	g/cm ³	0.45-0.55
HARDENESS	DIN 53505	Shore A	50-55
ELONGATION AT BREAK	UNI EN 12803	%	≥ 400
TENSILE STRENGTH AT BREAK	UNI EN 12803	N/mm	≥ 4
TEAR STRENGTH	UNI EN 12771	N/mm	≥ 2.0
TEAR RESISTANCE	ISO 34-1 METHOD C	N/mm	≥ 9.0
ABRASION RESISTANCE	UNI EN 12770	mm ³	≤ 250
FLEXURAL FATIGUE RESISTANCE (TEST TEMPERATURE = +23 °C)	UNI EN 17707	mm	0
FLEXURAL FATIGUE RESISTANCE (TEST TEMPERATURE = -20 °C)	UNI EN 12770	mm	0

AGEING PROPERTIES OF FOAM (14 DAYS, 70°C, 95% R.H.)

ELONGATION AT BREAK	UNI EN 12803	%	≥ 150
TENSILE STRENGTH AT BREAK	UNI EN 12803	N/mm	≥ 4
FLEXURAL FATIGUE RESISTANCE (TEST TEMPERATURE = +23 °C)	UNI EN 17707	mm	0

* Specimen Thickness : slab of 6 mm / 12 mm

- The mixing ratio is based on the best proportion. This ratio will be changed with the kind of dye and its adding amount.
- Free rise density may vary with temperature & humidity.
- Demould time may be prolonged with the increase of sole thickness.
- These physical data are acquired by testing a sample slab of 6mm thickness.
- Data listed above are just for reference. The detail data are subject to practice operation. If other request on Physical properties, please contact us.

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