SKIN COAT

PRODUCT DATA SHEET

1 INTRODUCTION

SKIN COAT PART A IS A POLYETHER BASED LIQUID. IT IS USED AS THE POLYOL COMPONENT IN A TWO COMPONENT SYSTEM, WHICH CAN BE PROCESSED AT 20C OR ABOVE FOR THE PRODUCTION OF ELASTOMERS OF HARDNESS OF APPROX 80 SHORE 'A'. THIS MATERIAL IS SUITABLE FOR MACHINE DISPENSING AND SHOULD BE MIXED WITH SKIN COAT PART B AT THE RATIO SPECIFIED TO OBTAIN OPTIMUM PROPERTIES.

2 CONSIDERATIONS

AS WITH ALL POLYURETHANE PRODUCTS, THE PRODUCT SHOULD NOT BE EXPOSED TO VERYSTRONG ACIDS OR BASES. THE HIGHEST TEMPERATURE AT WHICH THE PRODUCT SHOULD BE USED IS 80 TO 85C IN ORDER TO MAINTAIN THE FULL PHYSICAL PROPERTIES. THE MATERIAL CAN TOLERATE SHORT PERIOD TEMPERATURE INCREASES UP TO 120C WITHOUT PERMANENTLY IMPAIRING ANY OF THE PHYSICAL PROPERTIES.

DURING PROCESSING THE MATERIAL WILL PRODUCE AN EXOTHERMIC REACTION. ON COOLING THERMAL CONTRACTION WILL RESULT IN SOME SHRINKAGE. MOULD DESIGN SHOULD REFLECT THIS. OPTIMUM PHYSICAL PROPERTIES WILL BE ACHIEVED IF THE ELASTOMERS ARE POSTCURED AT A TEMPERATURE OF 80 TO 85C.

3 SKIN COAT PHYSICAL PROPERTIES

APPEARANCE @ 25C	:	UNPIGMENTED LIQUID
DENSITY @ 25C	:	1070 KG/M3
VISCOSITY @ 25C	:	1400 Mpa /S

4 PROCESSING

SKIN COAT IS USUALLY PROCESSED AT A TEMPERATURE OF 30C TO SUIT THE CURRENT APPLICATION BUT CAN BE PROCESSED AT HIGHER TEMPERATURES EITHER TO SHORTEN MOULDING CYCLE TIMES OR TO REDUCE VISCOSITY TO SUIT A PARTICULAR PROCESSING METHOD.

1. TEMPERATURE OF SKIN COAT PART A & B WILL HAVE AN EFFECT ON CURE RATE, AS A GENERAL RULE A 10C INCREASE IN STARTING TEMP WILL DOUBLE THE REACTION SPEED AND INPROVE CURE RATES. TUMBLE OR STIR DRUM OF SKIN COAT PART A THOROUGHLY TO ENSURE CONTENTS ARE HOMOGENIOUS.
2. MIX COMPONENTS TOGETHER THOROUGHLY WITHOUT ENTRAINING AIR.
3. POUR MIXTURE INTO PREHEATED MOULDS TREATED WITH A SUITABLE RELEASE AGENT.
4. ALLOW MATERIAL TO CURE IN MOULD. THE TIME FOR THIS OPERATION WILL VARY AND BE A FUNCTION OF MOULD DESIGHN AND SIZE.
5. DEMOULD THE FINISHED PIECE AND POST CURE OVERNIGHT. OPTIMUM PROPERTIES ARE OBTAINED AFTER A FURTHER SEVEN DAYS AT ROOM TEMPERATURE.
6. ANY METAL SUBSTRATE WHICH IS TO BE LINED OR COATED SHOULD BE DEGREASED, SHOT BLASTED OR SANDBLASTED AND PRIMED WITH A SUITABLE PRIMING SYSTEM TO ENSURE ADHESION OF THE URETHANE TO METAL SUBSTRATE.

5 TYPICAL MIXING RATIO BY WEIGHT

SKIN COAT NATURAL POLYOL	100 PART A POLYPOL	PART B ISO 47		
ISO CG300N	47.0			
HARDNESS SHORE “A”	80 TYPICAL			

TYPICAL POTLIFE AT 25C IS 120 TO 170 SECONDS 200GMS SAMPLE

6 PACKAGING

SKIN COAT PART A NATURAL
STANDARD PACKS OF 200KG STEEL DRUMS, BUT 25KG QUANTITIES CAN BE MADE AVAILABLE ON REQUEST.

SKIN COAT PART B
STANDARD PACKS OF 230KG STEEL DRUMS

7 STORAGE

BOTH SKIN COAT NATURAL PART A AND SKIN COAT PART B SHOULD BE STORED IN A DRY ENVIRONMENT AT AMBIENT TEMPERATURES. PROLONGED OR REPEATED HEATING OF THE MATERIAL WILL ACCELERATE DECOMPOSITION.

SKIN COAT NATURAL PART A AND SKIN COAT PART B ARE BOTH SENSITIVE TO MOISTURE, CONSEQUENTLY THEIR CONTAINERS MUST BE STORED IN A DRY AREA. PARTLY USED CONTAINERS MUST BE RESEALED IMMEDIATELY.

8 HANDLING

SKIN COAT PART B IS A POLYISOCYANATE BASED ON MDI AND NORMAL STANDARDS OF HANDLING SHOULD BE OBSERVED DURING ITS HANDLING. SAFETY GOGGLES OR GLASSES, GLOVES AND OVERALLS SHOULD BE WORN AND THE MATERIAL SHOULD PREFERENTIALLY BE USED IN A WELL VENTILATED AREA.