NOT

TELEX TO: L. FEYT,
MONSANTO TECH. SERV.
LOUVAIN LA NEUVE

FROM: D. H. PAUL
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REGARDING YOUR QUESTIONS CONCERNING POLYSULFIDE SEALANTS FOR DOUBLE-GLASS WINDOWS:

1) IT IS DIFFICULT TO MAKE SUGGESTIONS REGARDING CUSTOMER'S FORMULA WITHOUT KNOWING CUSTOMER'S FORMULA. CAN YOU GET IT?

2) POSSIBLE WAYS TO REDUCE VISCOSITY:

   A) REDUCE FILLER CONTENT OF FORMULA

   B) INCREASE PLASTICIZER CONTENT

   C) INCREASE POLYMER CONTENT

   D) REMOVE A SMALL PERCENTAGE OF THE S-278 AND SUBSTITUTE S-261 OR S-148 FOR IT (MAY CAUSE FOGGING PROBLEMS)

   E) USE A SMALL PERCENTAGE OF LOWER MOLECULAR WEIGHT POLYSULFIDE POLYMER (MAY HURT PHYSICAL PROPERTIES).

3) TO REDUCE SEPARATION PROBLEM:

   A) INSTEAD OF LEAD OXIDE, USE MANGANESE DIOXIDE (MnO_2) AVAILABLE FROM DIAMOND SHAMROCK (GRADE "D")

   B) ADD A SMALL AMOUNT OF VERY FINE PARTICLE CARBON BLACK (10-15 MILLIMICRON PARTICLE DIAMETER) TO CURING PASTE.

4) ONE COMPONENT SEALING FORMULATIONS ARE NOT RECOMMENDED FOR DOUBLE GLASS WINDOWS. ONE COMPONENT SYSTEMS CURE MUCH TOO SLOWLY. WINDOWS SHOULD NOT BE INSTALLED UNTIL SEALANT HAS CURED.

VISCOSITY MEASUREMENTS ARE NOT MEANINGFUL FOR THIS TYPE OF APPLICATION SINCE IDEAL WINDOW SEALANTS ARE THIXOTROPIC.

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DSW 588412

TO: L. FEYT
LOUVAIN LA NEUVE

HERE IS A SATISFACTORY GLASS SEALANT FORMULA:

BASE:	THIOKOL LP-2	100.0
	WHITCARB RC ($CaCO_3$)	45.0
	TiO_2 - RA-50	15.0
	A-187 (Silane)	3.0
	STEARIC ACID	0.3
	THIXATROL ST	3.0
	SANTICIZER 278	25.0
CATALYST:	MnO_2 "D"	10.0
	SANTICIZER 278	10.0
	FINE CARBON BLACK	0.6
		211.9

USE OF SILANES IN POLYSULFIDES IS COVERED BY U. S. PATENTS 3123495 AND 3312669 ... WHILE MnO_2 CURATIVE IS COVERED IN US 2940959 AND 3282902.

WE HOPE THIS WILL STILL BE OF SOME VALUE.

REGARDS,

D. H. PAUL

CC: N. W. Touchette
J. A. Cannon

DSW 588413