PECORA CORPORATION

Technical Bulletin # 69

PECORA 985 Two-Part Silicone Sealant

FIELD Q.C. PROCEDURES

The purpose of this document is to provide a general outline of field Q. C. procedures which should be undertaken each time a pumping session is begun or any time the pump operator suspects there may be change in the material or pump set up, or whenever a new code date of material is placed on the pumping system. Accurate records of Q. C., testing should be maintained and periodically reviewed by the pump operator to assure familiarity with the sealants performance and application properties.

Product Code Dates:
Always record Pecora 985 Activator and Base code dates being pumped and tested Pecora code dating procedures do not vary and may be read as:

A-1239, B-1339
This code date would indicate that the activator portion was manufactured on the one hundred and twenty third day of 1999 and the base was manufacture on the one hundred and thirty third day of 1999. Both activator and base have a one-year shelf life from date of manufacture. Please be sure that the material being used is within the published one-year life.

Butterfly Test:
This test should be performed every time the pump is started up as well as any time the operator suspects there may have been a change in the sealant or pump set up, or a new code date of sealant is installed on the pumping system. This is a visual test designed to indicate weather the sealant has been completely mixed prior to being extruded. A substantial bead of sealant should be extruded onto a sheet of paper or cardboard. This should then be folded paper and inspect for color consistency. Because the base is cream colored and the activator is black, a properly mixed bead will appear as a solid "dark grey" when smeared in this manner. An improper mix would appear to have white and/or
black streaks. This is a clear indication that the activator and base are not yet in correct proportions or properly mixed. Continue running the pump until the correct ratio of activator and base are reaching the mixing head. Re-check the mix with another "Butterfly Test" until assured of complete and proper mixing.

This test may also be performed with two pieces of clear glass rather than paper. Once again, after smearing the sealant bead by pressing the glass together, inspect the sealant for color smears. As above, continue pumping procedure until a complete mix is not attainable after sufficient material and repeated attempts have been exhausted, the problem most likely lies in the static mixing head. If this is the case, remove and disassemble the static or dynamic mixing head. Clean the head thoroughly, reassemble and refit the static mixing head onto the pumping system. Repeat the butterfly testing until assured of a complete mix. If a complete mix is still not attainable, the problem may lie in the pump itself. This will

require involve a more involved inspection and cleaning than the mixing head and should be performed in accordance with the directions of the pump manufacturer. Suggested solvents for cleaning are mineral spirits and M.E.K. Please be completely familiar with the health and safety concerns of all solvents being employed and confirm compatibility with all system components prior to exposure.

Cure Rate Tests:

The two most convenient tests for confirming sealant cure rate are "Snap Time" and "Through Cure" procedures. They may be performed as follows:

Snap Time- Fill a cup with mixed sealant and insert a small stick or tongue depressor. Every five or ten minutes, pull the stick away from the cup and observe the sealant for cohesive or adhesive failure. The sealant has achieved "snap time" when it adheres to the stick and breaks and falls back to the cup. It should "snap" back to the cup as a display of elastomeric properties. After some experience performing this type of test, the operator will become familiar with the forces and percentage of movement required for the sealant to break this way. Any drastic changes in these two characteristics is an indication of a change in the product. This should be cause for a closer examination of the mixing equipment or the mixed sealant.

Through Cure- Extrude enough mixed sealant sufficient to tool down a 3 inch wide by ½ inch deep by 6 inch long sample. Every five or ten minutes, cut through the tooled sample to examine the interior. A cured sample will cut cleanly and appear consistent throughout. Once again, either one or both of these procedures should be performed any time the pump is started or the operator suspects there is a change in the pumping system or material, or whenever a new code date of material is introduced to the system.

Mix ratio vs. Snap and Through Cure Time

(volume ratio)

Base	Act	Snap Time, minutes	Through Cure
17	1.00	17	
14	1.00	11	
12	1.00	10	
10	1.00	8	
8.5	1.00	7	
7.0	1.00	5	
6.0	1.00	5	

Adhesion Testing:

Clean a piece of production stock substrate with a "two-rag" alcohol wipe. Extrude a bead of mixed sealant onto the substrate and allow to completely cure. Once cured, pull on the sealant bead and record the mode of sealant failure; either cohesive or adhesive. All failure should be cohesive in nature. Adhesive failure may mean substrate contamination or variation or a problem with the sealant set up. Further examination will be required to determine the exact cause of an adhesion failure. Perform adhesion testing on every sealant lot employed in production. This testing should also be performed whenever the operator suspects a

change has occurred in the system and all results recorded in a project log book.

Quality Control Log

Project Ref: XXXXXXXX
Date: January, 1999
Time: 8:00 AM

Base Code Date	Activator Code Date	Butterfly Smear	Snap Time	Through Cure Time	Adhesion
1335	1235	Full Mix	17 min.	2 Hrs.	100% C.F.
1335	1255	Full Mix	18 min.	2 Hrs.	100% C.F.
1425	1255	Full Mix	17 min.	2 Hrs.	100% C.F.

PECORA CORPORATION

165 Wambold Road, Harleysville, PA 19438 • 1-800-523-6688 • 215-723-6051 • FAX 215-721-0286