

**Additional Black Mold Compound Qualified  
PCN1007  
April 13, 2004**



Clare Inc.  
78 Cherry Hill Dr.  
Beverly, MA 01915

April 13, 2004

To Whom It May Concern:

The following is to inform Clare customers of a change affecting our products. As part of our commitment to continuous improvement of our processes and products, we occasionally make revisions to the construction and materials used in our products. Clare notifies customers of changes under our standard quality procedures and under the unique requirements agreed to with customers and documented under Clare's Special Specification Procedure. Clare's Special Specification Procedure documents unique customer requests for notification that may extend beyond Clare's quality system notification requirements. Clare's quality system requires customer notification under the circumstances outlined below.

Clare's notification policy states:

*Clare is mindful that changes to process or product could have an adverse impact on our customers.*

*Therefore we verify, through our qualification methodology, that a change does not negatively affect product quality or reliability. We also verify that it does not impact form or fit.*

*Changes to function are notified to the customer if the change could adversely affect the customer but not if the change is to enhance product performance beyond the current specification, for example, higher isolation voltage capability for Solid State Relays.*

*In cases where a planned change would impact form, fit, or would adversely affect function, quality or reliability, we notify the customer 60 days in advance.*

*We also notify our customers of planned product obsolescence.*

The following definitions apply:

*Form: the visual appearance including color, marking, and surface finish*

*Fit: the external dimensions and associated tolerances*

*Function: the electrical, mechanical, thermal, quality and reliability performance characteristics*

Clare notifies customers of the changes using a Product Change Notification (PCN). Attached are the details of the pending product change.

Sincerely,

John Battaglini  
Director of Marketing

Attachments: PCN1007



CLARE

## Part Change Notification

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The PCN number assigned to the change is **PCN1007** and should be referenced in any correspondence related to the change. This PCN notification is the result of a Special Specification Requirement on file with Clare.

### Products Affected

All products (plastic encapsulated IC's).

### Detail Description of Change

Clare has qualified an additional black mold compound for use in its plastic encapsulated IC's, Relay Products and Optocouplers. Type: KE-300T(TH) (Low Stress Type), Manufactured By Kyocera Chemical Corporation

### Reason for the Change

To provide a second cost effective source for molding compound.

### Implementation Date

The date for implementation is set for 60 days after notification. Unless otherwise notified or directed, all parts manufactured after July 1, 2004 may contain the alternate mold compound KE-300T(TH) from the recently qualified supplier. We anticipate that Clare may continue to purchase mold compound from both sources but that primary source status will be given to the supplier associated with this PCN.

### Anticipated Impact on quality and reliability

Based on the results of the qualification tests, the change will have no effect on product quality or reliability. Clare has performed a series of reliability tests that included, but were not limited to, 1000 hours of HTRB (per JESD47-A), electrical characterization, physical construction analysis, thermal cycle, thermal shock and moisture sensitivity level verification (per J-STD-020); to the level 1 rating. These tests were performed on two different package styles with a minimum of three test groups of each of the differing product types including Form A relay types, Form B relay types and Multifunction integrated products. There no failures for any of the test groups in the evaluations. Further details of the qualification results and or testing that was performed is available by request. Please see the contact information below.

### Contact Information

For any questions related to the PCN notice, please contact Clare at the following address:

Customer Service  
Clare  
78 Cherry Hill Dr.  
Beverly MA, 01915  
Phone: 1-800- 27-CLARE (1-800-272-5273)

Please reference the PCN number in your inquiries.