Suitable bactericide for latex compound—quality control checks

We use heat-sensitized latex for dipped goods production. We face foul smell after a week of latex storage, (ammonia content is 0.08%). Could you suggest any suitable bactericide?

Chandra Mohan
Pune

I believe you have properly diagnosed the problem. A suitable bactericide for use with a latex compound is available from Vanderbilt World Trade Corporation, P.O. Box 5150, Norwalk, CT 06856 USA. Telephone No. 203-863-1400, Fax No. 203-853-1452. Robert Zukowski is their S.E. Asia representative.

You should also insure that distilled or boiled D.I. water is used in making your dispersions and your compound. Also all containers and storage vessels should be "sterilized" on a regular schedule to insure existing bacteria are eliminated. Laundry bleach or other materials available from your chemical supply house can be used for this purpose. Be sure to follow all safety precautions.

Our factory quality control regularly checks the tensile properties of our product's film. We have, without exception, been meeting the required tensile strength. We recently sent films to an outside laboratory for tensile testing. The tensile results were quite different than what was reported by our Q.C. How can that be when the specimens were taken from the very same products?

Anil Ganguly
Mumbai

There are several possible reasons for this to happen.

1. Are you quite sure that the specimens were from the very same products and from the same area on the product? Differences of glove tensile results can occur when some specimens are taken from a textured area and other specimens are taken from a smooth area.

2. Cutting dies can be distorted from repeated or improper use. This can result in specimens being wider or more narrow than specimens cut from a well-maintained specimen-cutting die. Tensile results would vary if the specimen width was improper.

3. The speed of the tensile tester can vary results. Slower speeds tend to give higher results, particularly with elongation numbers.

4. Latex films are soft and they are compressed by thickness gage presser feet which have a high force applied. ASTM D3767 says that gage pressure foot pressure should 22 kPa (3.2±0.7 psi) for solid rubber having a hardness of 35 IRHD or greater and 10 kPa (1.5±0.3 psi) for below 35 IRHD. Tensile strength values are based on the measured thickness of the specimen. A thickness gage with a higher pressure will give a lower thickness reading and therefore a higher tensile strength value will result. Make sure your thickness gages are calibrated both for precision with metal thickness.
standard pieces and for accuracy calibrate the pressure applied by the presser foot.

5. A further possibility is that the material sent to the outside laboratory may have experienced high temperatures in transit. Tensile values would, of course, be affected by those high temperatures.

What steps should be taken to reduce the amount of powder on powdered medical exam gloves and to control that reduced amount?

Ajoy Chatterjee
—Calcutta

The proper procedure would be to reduce the amount of powder that is being applied to the glove. This would be most cost effective.

The amount of powder added to the coagulant should be controlled so that it is at the minimum percentage which permits the glove to be easily removed from the dipping form. The same applies to the slurry used to apply powder to the outside of the glove. No more powder should be applied than is necessary to easily remove the glove from the dipping form.

The amount of powder can be checked using a graduated centrifuge tube and a simple hand-operated centrifuge. Samples can be taken from the coagulant and slurry tanks at frequent intervals during the shift. The amount showing in the graduated centrifuge tube after centrifuging can quickly show if the powder content is what you have established as the proper amount.

If, through error, an excess of powder is present on the gloves, it can be removed by a short period of tumbling in an unheated laundry tumbler. Proper safety measures should be used to collect the powder removed for tumbling.

KERALA RUBBER & RECLAIMS LIMITED

Rubber Compounding Unit : Undertaking job work for all types of rubber compound. Plant production capacity is around 600 MT per month. Can undertake job work for precured tread rubber also.

Reclaimed Rubber : Pioneers in whole tyre reclaimed rubber since 1971

Sister concerns : Manufacturing high quality precured tread rubber

ADDRESS :
KERALA RUBBER & RECLAIMS LTD.
Carmel Centre, Banerji Road, Cochin - 682 018
Ph. : 395363, 390849, 390219  Fax : 91-484-390414
Telegram : RECLAMATOR, Kochi - 18