

## The latex doctor



Harry F. Bader

# Right pricing of protein-stripped NRL; fresh uses for SR-NR blends

Can protein-stripped natural latex be competitively priced and, more importantly, can useful physical properties be maintained compared with unmodified natural latex? —

*Anonymous question at International Latex Conference 2003 in Akron, Ohio, USA*

I believe the answer is “yes” although that hasn’t happened yet. The products available at this time are not competitively priced. I’m not aware if this is profit-motivated or if it is due to costly processing.

One method has promise and should not add a great cost increase to the price.

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Are all the hypersensitive reactions, commonly known as allergies resulting from wearing natural rubber (NR) gloves, due to NR latex? — *Anonymous question at International Latex*

Those hypersensitive reactions which are true protein allergies are due to NR latex. However, the public in general as well as the medical community are frequently inaccurate in their diagnosis. Contact dermatitis caused by residual chemicals in NR latex products is frequently diagnosed as an allergy. Contact dermatitis is a much more common condition than an allergy and, possibly more important, the cure is much different.

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How can I best control the thickness of my gloves? — *A Southeast Asian glove maker*

There is no magic answer to this question. In fact, the

solution is simple. Everything must be the same day after day, hour by hour. When that is true, the glove thickness will always be the same.

When I say everything, this is what I mean must be unchanged: Form temperature, latex dwell time, dip speed, latex viscosity, coagulant temperature, latex % solids, total temperature, coagulant concentration, latex concentration, chloroform pressure, coagulant dwell time, latex temperature, form wash time, latex mechanical stability time, form wash temperature, latex dip tank, and agitator speed.

When all conditions are held constant, the thickness will remain constant. To get the gloves to be thinner, the only needed change would be to reduce the coagulant concentration. Or to get thicker gloves, increase the coagulant concentration.

I said the solution was simple. However, it is sometimes difficult to achieve. Generally, process conditions are relatively easy to stabilise to a fixed condition. Latex conditions are more difficult to hold constant. It can be done. I’ve done it in climates as different as that of Scotland and Oklahoma, US.

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In a small company of less than 50 employees, is it possible to get started on employing the concepts of lean manufacturing without sending a key employee for black-belt training? If so, how should they begin? — *Anonymous at International Latex Conference, Akron*

This is not a ‘latex’ question. However, since I’ve been a

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Manufacturing Manager for most of my career, I'll take a chance on an answer.

Improving performance requires the workforce *to want to* improve performance. Management can't do the job without the workforce being cooperative.

Dr. Juran, the author of the *Quality Control Handbook*, and Doctor Maynard, the author of the *Industrial Engineering Handbook*, both subscribe to having an incentive system (IS) to improve output as well as quality.

With good supervision you can expect no more than 70% of a properly engineered standard when there is no incentive payment. However, with a proper IS, the output should be 125%-133% of the standard.

When an IS is set to start at 100% performance, the 'company' gets an output increase from 70 to 100% with no pay increase. Over 100% is at standard cost.

Both the workforce and the company gain. The company gets a 30% increase in output from 70

to 100% of standard and the workforce gets the capability of earning 25-33% more money for an incentive output of 125-133%. This is with no increase in unit cost to the company.

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What is the future of synthetic and natural rubber blends in the dipping industry?— *Anonymous at Akron Latex Conference*

I believe the future will bring more natural/synthetic latex blends.

We have already seen these improvements in product performance.

- Improved ozone resistance NR/chloroprene
- Improved oil resistance NR/chloroprene
- Improved tear resistance NR/nitrile
- Reduced air permeation NR/chloroprene
- Improved chemical resistance NR/nitrile and NR/chloroprene

There is no reason to believe that experimentation will not result in more product improvements using natural/synthetic latex blends. ■



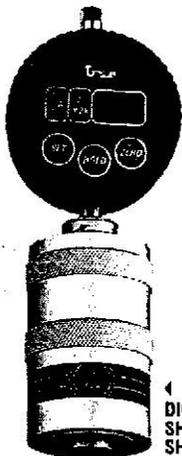
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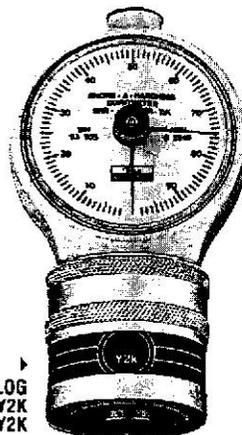
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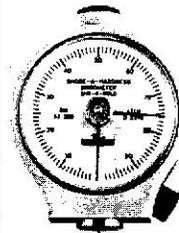
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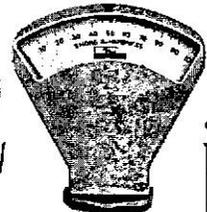


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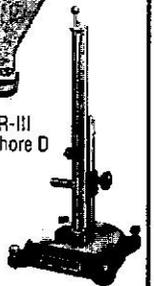
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