

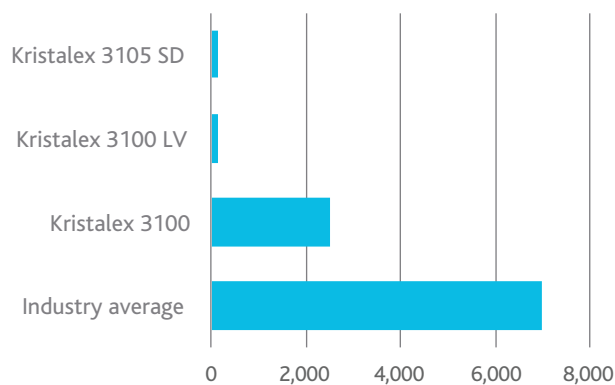
New pure monomer resins to keep your food safer

As the #1 supplier of pure monomer resins in the world, Eastman is expanding its portfolio of Kristalex™ hydrocarbon resins with two innovative offerings for the adhesives market. Recent concerns about migration of low-molecular-weight materials into food have prompted Eastman to develop the next generation of high quality pure monomer resins, Kristalex 5140 SD and Kristalex 3105 SD. These products were formulated to meet increasing demand for highly stable, low-VOC resins that have a demonstrated low-risk profile as measured against modern toxicological standards. When developing these new grades, Eastman also took into account the process conditions that may exist at each step in the value chain from production to the consumer.

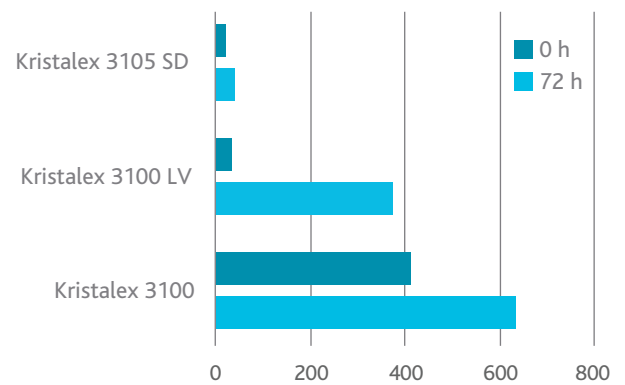
In addition to the improved properties, Eastman has generated a toxicological dataset for the new food contact grades which is based on the testing requirements of the European Food Safety Authority (EFSA). The data can be used to carry out risk assessments for food contact applications such as hot-melt adhesives for food packaging, heat-seal lacquers, or food contact pressure-sensitive adhesives. The new tackifier resins can also exhibit superior performance in other applications that require high stability and low volatiles and odor, such as hygiene and specialty pressure-sensitive adhesives.

Food contact PMR resins—Kristalex 3105 SD

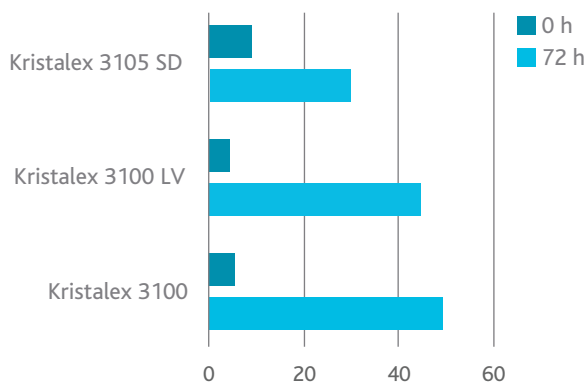
Total volatiles in ppm



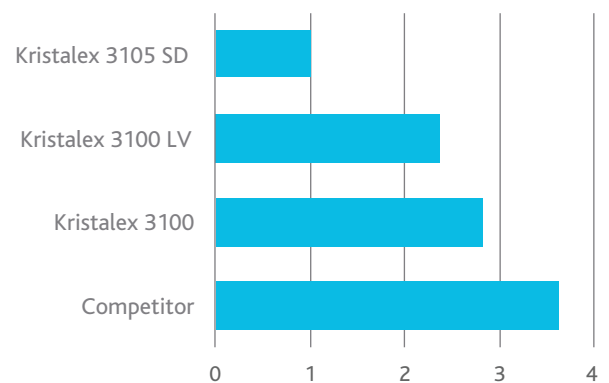
AMS in ppm after heat exposure at 177°C



Color stability (YI)

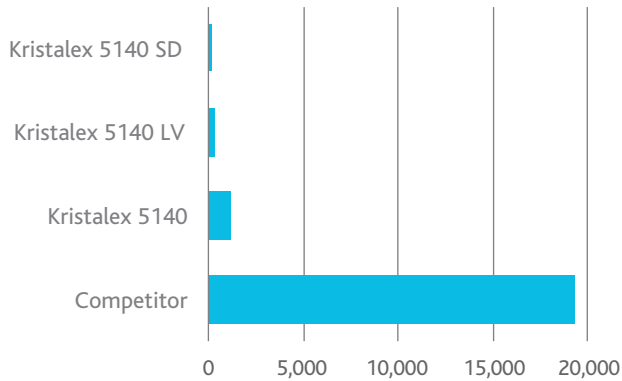


Odor rating

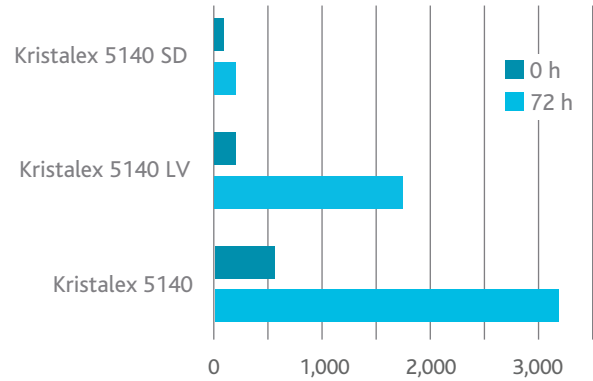


Food contact PMR resins—Kristalex 5140 SD

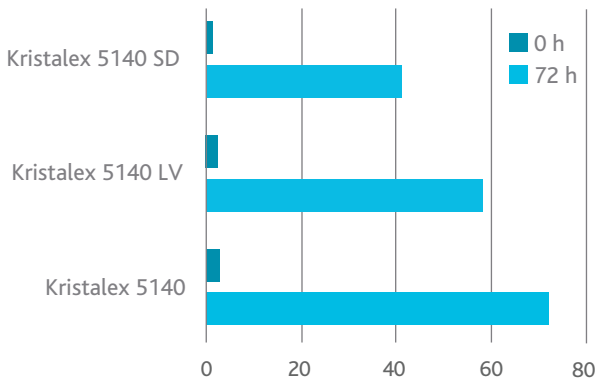
Initial total volatiles in ppm



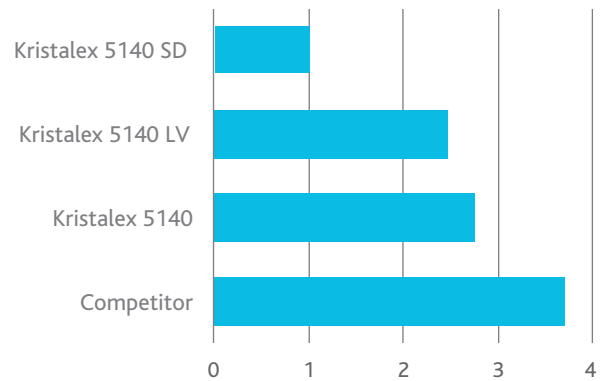
AMS in ppm after heat exposure at 177°C



Color (YID) stability after exposure at 177°C



Odor rating after 4 hours exposure at 170°C



With the new SD pure monomer resins, high quality adhesives can be formulated which give the manufacturers and users the confidence that a high product quality can be maintained throughout the value chain, providing safer products for the consumer.

Contact Eastman for formulation and food contact risk assessment information.

EASTMAN
The results of insight™

Eastman Corporate Headquarters
P.O. Box 431
Kingsport, TN 37662-5280 U.S.A.

U.S.A. and Canada, 800-EASTMAN (800-327-8626)
Other Locations, +(1) 423-229-2000

www.eastman.com/locations

Although the information and recommendations set forth herein are presented in good faith, Eastman Chemical Company ("Eastman") and its subsidiaries make no representations or warranties as to the completeness or accuracy thereof. You must make your own determination of its suitability and completeness for your own use, for the protection of the environment, and for the health and safety of your employees and purchasers of your products. Nothing contained herein is to be construed as a recommendation to use any product, process, equipment, or formulation in conflict with any patent, and we make no representations or warranties, express or implied, that the use thereof will not infringe any patent. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS AND NOTHING HEREIN WAIVES ANY OF THE SELLER'S CONDITIONS OF SALE.

Safety Data Sheets providing safety precautions that should be observed when handling and storing our products are available online or by request. You should obtain and review available material safety information before handling our products. If any materials mentioned are not our products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed.

© 2017 Eastman. Eastman brands referenced herein are trademarks of Eastman or one of its subsidiaries or are being used under license. The ® symbol denotes registered trademark status in the U.S.; marks may also be registered internationally. Non-Eastman brands referenced herein are trademarks of their respective owners.