## CHEMISTRY THAT MATTERS™



# CLEARLY SAFER: REDUCING OPERATOR INJURY FROM FLYING DEBRIS CREATED BY ATTACHMENTS

I EXAN™ POLYCARBONATE SHEET IS 250x MORE IMPACT RESISTANT THAN GLASS



# HEAVY EQUIPMENT **APPLICATIONS**

- Flat windshields
- Formed windshields
- Side, back and door glazing
- Visors
- Skylights
- Guards

LEFT: Two identical excavators, one outfitted with a heavy-duty hydraulic hammer, which increases the risk of injury when the operator is sitting behind a glass windshield.

Heavy equipment cab enclosures provide protection and comfort for the operator while optimizing the visibility of their workplace environment. Although glass has traditionally been used for cab enclosures, it has some serious drawbacks:

- Tempered glass may shatter and laminated glass may exhibit white-out or fail when hit violently by heavy objects or flying debris - potentially causing harm, disrupting work and requiring costly replacement.
- Glass is heavy, making it challenging to transport, handle and install.
- It is difficult or extremely expensive to create curved windows with glass.
- Untreated glass does not protect against some harmful ultraviolet (UV) radiation.

Increasing use of heavy equipment attachments, such as hammers and mulching heads underscore the need to optimize impact protection of enclosures with safety glazing. That's why manufacturers of heavy equipment for forestry, mining, landscaping and construction are replacing glass in cab windshields, enclosures and guarding with a more advanced material: LEXAN polycarbonate (PC) sheet.

#### **BENEFITS OF SPECIALTY COATINGS**

Coatings applied to the surface of PC sheet offer enhanced properties, such as:

• Abrasion resistance

• UV protection

- Anti-fogging
- Graffiti removal

• Water run-off for visibility

Chemical resistance

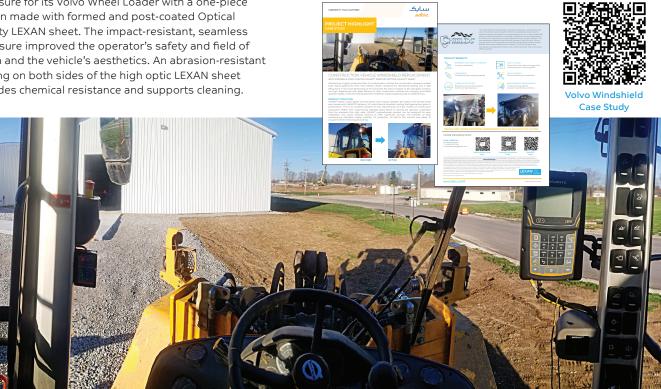
#### **ONSITE GLAZING REPLACEMENT MADE EASY**

LEXAN sheet's light weight (50% less than glass) makes replacement glazing easy to transport and install in the field. Plus, the option to use existing framing can save time and money.

#### FIELD NOTES

To enhance safety and reduce maintenance downtime, a construction company replaced the three-part glass enclosure for its Volvo Wheel Loader with a one-piece design made with formed and post-coated Optical Quality LEXAN sheet. The impact-resistant, seamless enclosure improved the operator's safety and field of vision and the vehicle's aesthetics. An abrasion-resistant coating on both sides of the high optic LEXAN sheet provides chemical resistance and supports cleaning.

Learn more about the design, protection and visibility advantages of LEXAN PC glazing for heavy equipment enclosures.



ABOVE: Single piece, high optical quality LEXAN PC windshield made by SHIELDS for a Volvo wheel loader, allowing the machine operator an improved field of vision compared to glass. Image courtesy of SHIELDS.

### CONTACT US:

#### **AMERICAS SABIC Functional Forms** T +1 800 323 3783 E spinside.sales@sabic.com





Impact Performance Video

Cleaning Performance Video

THE MATERIALS, PRODUCTS AND SERVICES OF SAUDI BASIC INDUSTRIES CORPORATION (SABIC) OR ITS SUBSIDIARIES OR AFFILIATES ("SELLER") ARE SOLD SUBJECT TO SELLER'S STANDARD CONDITIONS OF SALE, WHICH ARE AVAILABLE UPON REQUEST. INFORMATION AND RECOMMENDATIONS CONTAINED IN THIS DOCUMENT ARE GIVEN IN GOOD FAITH. HOWEVER, SELLER MAKES NO EXPRESS OR IMPLIED REPRESENTATION, WARRANTY OR GUARANTEE (I) THAT ANY RESULTS DESCRIBED IN THIS DOCUMENT WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN OR APPLICATION INCORPORATING SELLER'S MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS. UNLESS OTHERWISE PROVIDED IN SELLER'S STANDARD CONDITIONS OF SALE, SELLER SHALL NOT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS, SERVICES OR RECOMMENDATIONS DESCRIBED IN THIS DOCUMENT. Each user is responsible for making its own determination as to the suitability of Seller's materials, products, services or recommendations for the user's particular use through appropriate end-use and other testing and analysis. Nothing in any document or oral statement shall be deemed to alter or waive any provision of Seller's Standard Conditions of Sale or this Disclaimer, unless it is specifically agreed to in a writing signed by Seller. Statements by Seller concerning a possible use of any material, product, service or design do not, are not intended to, and should not be construed to grant any license under any patent or other intellectual property right of Seller or as a recommendation for the use of any material, product, service or design in a manner that infringes any patent or other intellectual property right. SABIC and brands marked with ™ are trademarks of SABIC or its subsidiaries or affiliates, unless otherwise noted.

© 2023 Saudi Basic Industries Corporation (SABIC). All Rights Reserved.

Any brands, products or services of other companies referenced in this document are the trademarks, service marks and/or trade names of their respective holders.

