

CHEMISTRY THAT MATTERS™



AUTOMOTIVE ROOFS IN LEXAN™ POLYCARBONATE RESIN

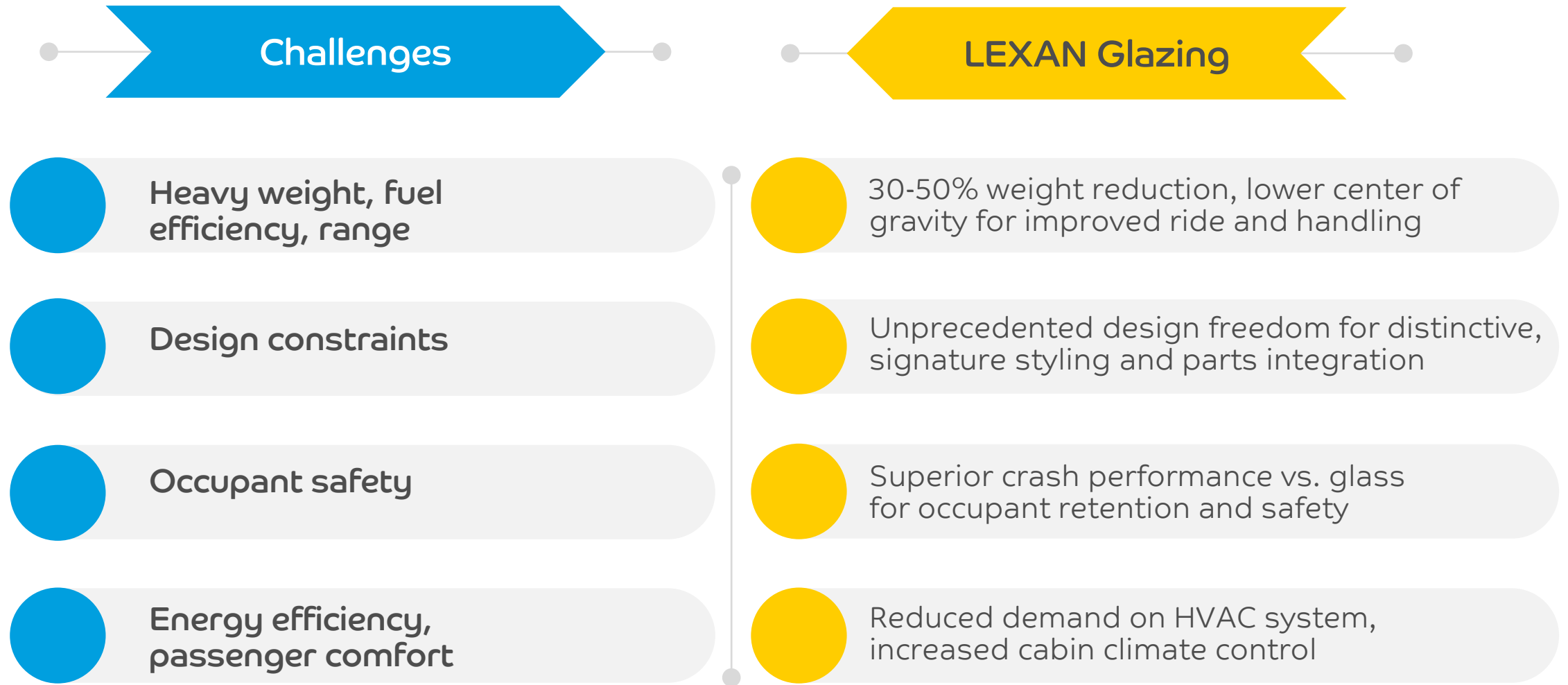
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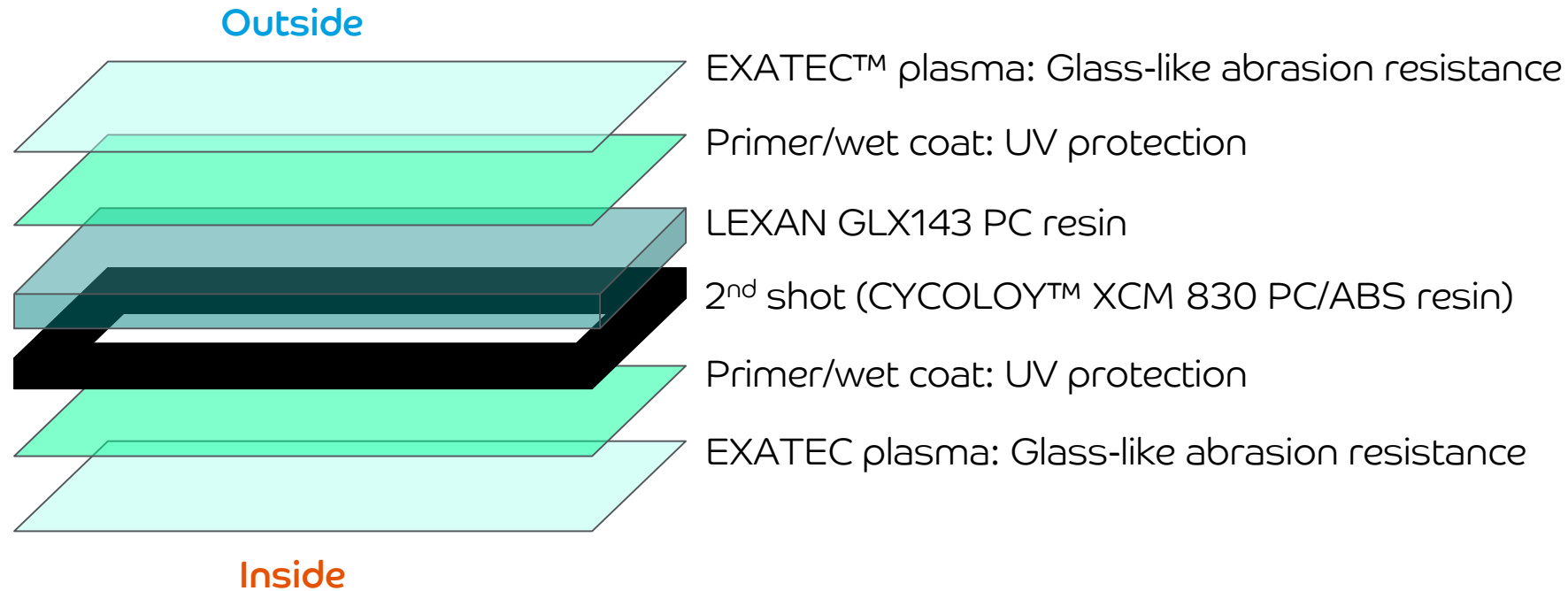
AUTOMOTIVE DESIGN TRENDS – PANORAMIC ROOFS



VALUE OF LEXAN™ GLAZING FOR AUTOMOTIVE ROOFS



ADVANCED GLAZING TECHNOLOGY FROM SABIC



➤ EXATEC E900 coating from SABIC enables superior scratch and weathering performance for longer lasting panoramic roofs compared to traditional hard coatings; this coating also allows OEMs to comply with regulatory requirements for driver visibility and durability

GLAZING PARTS IN PRODUCTION - EXAMPLES

BUICK GL8 minivan with rear quarter window in LEXAN™ resin



- Largest rear quarter window in LEXAN
- 40% lighter and more impact resistant than a comparable glass window
- Design elements that cannot be achieved with glass
- China Tier 1 supplier Shentong produced the part

Chevrolet Corvette Stingray with see-through roof in LEXAN™ resin



- 40% lighter and more impact resistant than a comparable glass window
- Siloxane hard-coat for abrasion resistance and UV protection
- Past four generations of Corvette featured roofs in LEXAN resin

BACKGROUND INFORMATION

Heavy weight, fuel efficiency, range – Large clear surfaces above the belt line of the vehicle push the vehicle's center of gravity upwards, causing ride and handling issues. LEXAN resin can offer 30-50% weight reduction, addressing those issues and contributing to fuel economy improvements or extended range for EVs.

Design constraints – Conventional glass solutions offer limited design possibilities. LEXAN resin can deliver unprecedented freedom to create distinct, signature styling, add aerodynamic features and integrate numerous components.

Occupant safety – Conventional glass solutions have limitations. LEXAN resin's superior impact properties can deliver improved crashworthiness and protection for occupants.

Energy efficiency, passenger comfort – Large clear surfaces exerts more demand on a vehicle's HVAC system. LEXAN resin's thermal conductivity is 1/5th that of glass and delivers superior thermal insulation. This lowers demand on the HVAC system and can allow for a reduction in its size, contributing to weight savings. Research demonstrates that extended range for EVs can be possible with all-LEXAN glazing.

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