

# DURABILITY + EFFICIENCY

## THE NEW LEXAN™ KH6500 SHEET ENHANCES GRAFFITI RESISTANCE

As the global population and urbanization increases, the demand for modern mass transit systems also rises. Due to this, railway coach manufacturers are facing challenges not only to comply with new regulations and deliver passenger safety and comfort, but also to increase the efficiency and cost effectiveness of their operations.

SABIC has responded to these challenges by introducing a new flame retardant, anti-graffiti solution [LEXAN KH6500 SHEET](#). SABIC's new material meets the requirements of current German DIN rail standard (DIN 5510-2:2009), offering customers a non-chlorinated and non-brominated material supporting their sustainability efforts. The new LEXAN KH6500 sheet solution complies with [French NF F 31-112 anti-graffiti norm with G1 rating](#) offering outstanding chemical resistance against graffiti and cleaning agents., providing cost-efficient choice. The new solution also complies with the [US FRA fire safety norm](#) for passenger rail car walls, ceilings and tray tables.

LEXAN KH6500 sheet offers excellent resistance to even the repeated use of various anti-graffiti cleaning agents and provides high stiffness, enabling excellent impact performance. It also offers low gloss surface finish after thermoforming. The LEXAN KH sheet series is a cost efficient excellent choice to replace polyvinyl chloride (PVC), polyester, vinyl ester or phenolic fiber-reinforced plastic (FRP) materials used in many interior train applications including interior panels, window frames, ceilings and other large interior parts. Compared to metal, thermosets and glass, the new LEXAN sheet material can generate significantly lower system costs through the consolidation of parts to streamline production and the avoidance of secondary operations such as painting and coating, machining and polishing.

### POTENTIAL BENEFITS

- > Graffiti resistance - [French NF F 31-112 \(G1\)](#) anti-graffiti norm
- > Chlorine and Bromine free fire safety
- > Compliance with [US fire regulations](#):
  - > [NFPA 130](#) - Fixed Guideway Transit and Passenger Rail Systems
  - > [ASTM E162](#) - Surface Flammability of Materials Using a Radiant Heat Energy Source
  - > [ASTM E662](#) - Specific Optical Density of Smoke Generated by Solid Materials
  - > [ASTM E1354](#) - Heat and Visible Smoke Release Rates for Materials and Products Using an Oxygen Consumption Calorimeter
  - > [SMP 800C](#) - Toxic gas sampling and analytical procedures
- > Easy manufacturing and thermoforming
- > Low gloss aesthetics after thermoforming
- > High modulus, ductile platform
- > Durability, high stiffness and impact resistance
- > Lightweight
- > Design freedom

### POTENTIAL APPLICATIONS

- > Railway interior seats and tables
- > Rail carriage walls and ceilings
- > Other large rail interior parts



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