

## LEXAN™



### HIGH STRENGTH, IMPACT RESISTANCE AND TRANSPARENCY

LEXAN™ is a polycarbonate thermoplastic resin best known for its high strength, impact resistance, and transparency, which make it a popular choice for a wide range of applications.

**LEXAN'S HIGH IMPACT RESISTANCE AND TRANSPARENCY MAKE IT AN IDEAL CHOICE FOR APPLICATIONS WHERE DURABILITY AND OPTICAL CLARITY ARE IMPORTANT. ADDITIONALLY, ITS VERSATILITY ALLOWS IT TO BE EASILY MOLDED INTO COMPLEX SHAPES, MAKING IT A POPULAR CHOICE FOR DESIGNERS AND ENGINEERS ACROSS VARIOUS INDUSTRIES.**

### CHARACTERISTICS

LEXAN is a polycarbonate thermoplastic resin that is known for its excellent mechanical properties and optical clarity. Characteristics and properties found across the product line include:

- High impact resistance
- Transparency
- UV resistance
- Flame resistance
- Heat resistance
- Good chemical resistance



#### Aerospace

LEXAN's high strength-to-weight ratio makes it ideal for aircraft components where weight reduction is critical. Additionally, its ability to withstand extreme temperatures and its resistance to chemicals and flame spread make it suitable for various aerospace applications that require durability and safety compliance.

Applications include:

- Aircraft windows and canopies
- Cockpit instrumentation
- Interior components
- Lighting systems
- Engine components
- Structural applications
- Protective shields



#### Automotive and Mobility

LEXAN provides excellent optical clarity and dimensional stability, making it ideal for automotive lighting applications. Additionally, its lightweight nature contributes to fuel efficiency and helps in reducing vehicle weight, thus enhancing overall performance.

Applications include:

- Headlamp & taillight lenses and covers
- Interior trim components
- Instrument panels and clusters
- Roof panels and sunroofs
- Window and door glazing
- Exterior mirror housings, grilles and radiator covers
- Spoilers and aerodynamic components
- Battery module enclosures (in electric vehicles)

## Building and Construction

LEXAN provides excellent transparency, allowing for natural light transmission while maintaining thermal insulation properties, contributing to energy efficiency in buildings.

Applications include:

- Window and skylights
- Architectural glazing
- Safety and security glazing
- Roofing panels
- Interior partitions and dividers
- Greenhouse and garden structures
- Sound barriers

## Signage and Displays

LEXAN's excellent transparency and optical clarity make it suitable for creating vibrant and eye-catching signage and displays. Its lightweight nature allows for easy installation and transportation of signage and displays.

Applications include:

- Outdoor and indoor signage
- Illuminated signs and channel letters
- Point-of-sale displays
- Trade show exhibits and booth displays
- Menu boards and information panels
- Display cases and cabinets
- Graphic overlays and control panels
- Transparent window displays
- Interactive kiosks and touchscreens
- Architectural and decorative signage

## Packaging

LEXAN's high impact resistance and durability make it suitable for protecting fragile and sensitive products during transportation and handling. It provides excellent transparency and clarity, allowing for product visibility and enhanced shelf appeal. Additionally, its dimensional stability and resistance to temperature variations make it suitable for packaging applications that require stability and integrity of the packaged contents.

Applications include:

- Protective packaging for electronics and fragile items
- Food packaging containers and trays
- Cosmetic and personal care product packaging
- Medical device packaging
- Transparent packaging for consumer goods
- Industrial packaging for automotive and machinery parts
- Pharmaceutical packaging, including blister packs and vials
- Rehabilitation and assistive devices

## Healthcare

LEXAN's excellent chemical resistance and ease of sterilization make it suitable for frequent cleaning and disinfection. Its biocompatibility with ISO10993 or USP Class VI standards contributes to its suitability for healthcare applications.

Applications include:

- Protective shields and barriers
- Medical device housings
- Sterilizable equipment
- Transparent windows and closures
- Hospital furniture and fixtures
- Labware and consumables

## Electrical and Electronics

LEXAN provides good dimensional stability and resistance to high temperatures, ensuring reliable performance in electronic devices and components. Additionally, its flame-retardant properties contribute to safety compliance in electrical and electronic applications.

Applications include:

- Enclosures
- Connectors and terminal blocks
- Electrical components and switches
- Insulators
- Light diffusers and covers
- Printed circuit boards
- Insulating sleeves and bushings



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Nexeo Plastics  
1780 Hughes Landing Blvd  
Suite 1000  
The Woodlands, TX 77380 USA  
[nexeoplastics.com](https://nexeoplastics.com)

To Place Your Order:  
US & Canada: 833.446.3936  
[getplastics@nexeoplastics.com](mailto:getplastics@nexeoplastics.com)  
Mexico: +52 55 4749 1710  
[ventas@nexeoplastics.com](mailto:ventas@nexeoplastics.com)

For Technical Questions:  
US & Canada: 866.430.9666  
Mexico: +52 81 1182 5109  
[techconnect@nexeoplastics.com](mailto:techconnect@nexeoplastics.com)



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