

## SABIC DELIVERS SUSTAINABLE, EXTRA SAFETY AND COST EFFECTIVE SOLUTION FOR AUTOMATION INDUSTRY

### ELECTRICAL CASE HISTORY



#### APPLICATION

SIMATIC Controller

#### OEM

Siemens

#### SEGMENT

Automation

#### KEY CHALLENGES

Stringent industry standards  
ever-increasing demands for speed and  
complexity

#### SOLUTIONS

A material with extreme heat resistance,  
LEXAN™ EXL 5689 copolymer resin from  
SABIC, also provides excellent flow and  
ductility.

#### RESULTS

Siemens delivered a controller with  
exceptional design and the ability to  
withstand the 5G forces acting on the  
components inside.

#### CHALLENGES

Siemens had specific material requirements for its new SIMATIC controller. In particular, they needed a material solution that would provide safety from external damage and would enable more compact design.

#### SOLUTION

LEXAN EXL 5689 resin from SABIC is a polycarbonate (PC) copolymer formulation that offers superior impact and low temperature ductility compared to standard PC. This family of resins is well suited for applications where safety from external damages is very important providing extra safety ratio and complying with UL508 legislation at very low thickness enabling thin wall design and cost out option. In particular, the solution:

- Is a non-halogenated formulation delivering V-0 at 1.5 mm and GWFI 960 °C (Glow Wire Flammability Index) at 1.2 mm.

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## SOLUTION (continued)

- Complies with UL508 legislation at very low thickness, enabling thin wall design and cost out options
- Outstanding balance of ductility (to -60 °C) and viscosity

## RESULTS

Siemens was able to deliver SIMATIC S7-1500 controller with extra robustness enabling longer life time while meeting stringent safety requirements with LEXAN EXL 5689 resin from SABIC. In addition this material complies with norms and industry requirements for industrial low voltage circuit breakers.

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## FURTHER INFORMATION

### WEBSITES

[www.sabic.com](http://www.sabic.com)

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