

# UL746G CERTIFIED LNPT™ ELCRES™ NPCRX9612U RESIN MEETING PFAS REGULATIONS

## MORE RELIABILITY IN MEDICAL DEVICES

Device OEMs seek material solutions that can comply with potential PFAS regulations without sacrificing chemical resistance or durability.

Frequent exposure to aggressive disinfectants may cause stress cracking potentially resulting in premature failure.

The new UL746G certified LNPT™ ELCRES™ NPCRX9612U resin can offer excellent resistance to disinfectants while meeting UL 94 V-0 at 1.5mm.



## CHEMICAL RESISTANCE TO DISINFECTANTS

SABIC ESC Method: per ASTM D543  
Exposure conditions: 7 days, 23°C; Strain level: 1.0%

|                         | Quaternary ammonium salts |                         | Peroxygens              |
|-------------------------|---------------------------|-------------------------|-------------------------|
|                         | Sani-Cloth® AF3           | Diversey Oxivir® TB     | Virex® II 256           |
| PRODUCT                 | $\sigma_y$ $\epsilon_b$   | $\sigma_y$ $\epsilon_b$ | $\sigma_y$ $\epsilon_b$ |
| FR PC/ABS               | ■ ■                       | ▲ ■                     | ■ ■                     |
| PC/PBT                  | ● ■                       | ● ●                     | ● ●                     |
| ELCRES CRX7412U RESIN   | ● ▲                       | ● ●                     | ● ▲                     |
| ELCRES NPCRX9612U RESIN | ● ●                       | ● ●                     | ● ●                     |

| Compatibility color rating | Yield stress retention ( $\sigma_y$ ) | Elongation at break retention ( $\epsilon_b$ ) |
|----------------------------|---------------------------------------|--|
| Compatible                 | >90                                   | 80 - 139                                       |
| Marginal                   | 80 – 89                               | 65-79  |
| Not compatible             | < 79                                  | < 64 or > 140                                  |

## DISCOVER POTENTIAL BENEFITS

The new LNP ELCRES [NPCRX9612U](#) resin could offer numerous potential benefits to help meet design and performance needs in medical devices and equipment such as:



**DISINFECTANT RESISTANCE**  
Enhanced resistance to combat premature stress cracking



**BIO-COMPATIBLE**  
Bio-compatibility according to parts 5 & 10 of ISO10993



**IMPACT RETENTION**  
Retention of ductility upon exposure to chemicals



**CUSTOM COLORS**  
Color matching to support design or branding needs



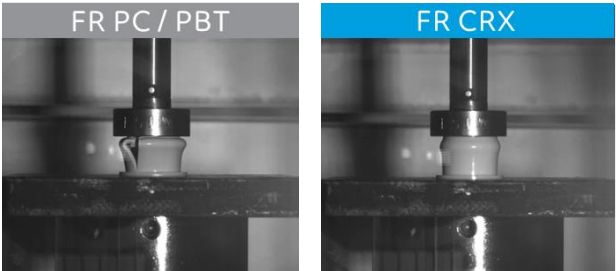
**PROCESSABILITY**  
Thin wall for light weight designs, miniaturization



**SUSTAINABILITY**  
ELCRIN™ grades offer a lower carbon footprint

## RESIST EXPOSURE TO AF3

A high-performance amorphous material, LNP ELCRES CRX resin displays better impact retention after exposure to harsh disinfectants versus a semi-crystalline benchmark. Exposed for two weeks to AF3 wipes, wrapped inside and outside. Initial energy: 43 J; Impact speed: 6 m/s.



## POTENTIAL APPLICATIONS

- Insulin pumps
- Infusion pumps
- Dental chair components
- Ultrasound monitor
- Surgical tools
- Imaging devices
- Display monitors



## A GROWING PORTFOLIO OF UL746G-CERTIFIED MATERIALS MEETING PFAS REGULATIONS

SABIC’s new NP family is certified per UL746G – an outline of investigation for Non-Fluorine and Non-PFAS containing materials. Plus, these materials meet UL94 V-0 ratings at 1.5mm down to 1.0 mm.

Materials that are found to comply with UL746G requirements will be searchable and have the certificates published on their individual recognition cards (Yellow Cards).

The new NP family offers a combination of properties to help meet customer’s challenges across multiple segments such as consumer electronics, healthcare, infrastructure, mobility, and industrial.



Learn more about  
UL746G testing.  
[bit.ly/UL-PFAS-TEST](https://bit.ly/UL-PFAS-TEST)

## CUSTOM-COLORABLE UL746G CERTIFIED NP GRADES UNDER THE NEW NP FAMILY NOMENCLATURE

In addition to the [NPCRX9612U](#) resins, the following grades are commercially available.

|                        |                  |   |            |
|------------------------|------------------|---|------------|
| LN™ ELCREST™<br>RESINS | UL94 V-) @ 1.0mm | High flow (MVR 24)<br>Low temp ductility (-40°C)    | NPEXL9834  |
|                        | UL94V-0 @ 1.5mm  | Standard flow (MVR 7)<br>Low temp ductility (-60°C) | NPCXL9030L |



## MORE DESIGN FREEDOM IN ELECTRONICS

The new LNP™ ELCRES™ **NPEXL9834** resin brings unprecedented dual certification of UL746G and UL 94 V-0 at an impressive 1.0 mm thinness.

LNP ELCRES NPEXL9834 resin can bring excellent durability and reliability to electronics devices while helping OEMs to address PFAS concerns.



### EXCELLENT PROCESSING

High flowability for more design freedom



### ROBUST FLAME RETARDANCE

Thin wall UL94 V-0 rating at an impressive 1.0 mm, all colors.



## MORE DURABILITY IN DAILY USE

With standard-flow and UL94 V-0 at 1.5 mm, the UL746G certified LNP ELCRES **NPCXL9030L** resin offers extreme low temperature ductility down to -60°C.

Plus, consumer electronics, mobility and infrastructure components can benefit from additional durability thanks to excellent chemical resistance.



### SUPERIOR IMPACT DUCTILITY

Outdoor use with -60°C ductility. Excellent heat/hydro stability.



### CHEMICAL RESISTANCE

Enhanced ESCR in combination with typical EXL features





## MORE SUSTAINABLE OPTIONS

LNP NP grades can be produced under the LNP™ ELCRIN™ brand as **ISCC+ certified bio-renewable polymers** to help reduce carbon emissions.

These products are part of SABIC's TRUCIRCLE™ portfolio and services for circular solutions. Learn more about sustainable solutions on our website.

**SUSTAINABILITY**  
Lower carbon footprint



**EASY TO IMPLEMENT**  
Potential drop-in solution





Access Technical Data Sheets for  
UL746G certified NP grades  
[bit.ly/NPGrades\\_UL746G](https://bit.ly/NPGrades_UL746G)

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MEDICAL DEVICES

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