UL746G CERTIFIED LNP™ 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 LNP™ 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	σ_y ε_b	σ_y ε_b	σ_y ε_b
FR PC/ABS	■ ■	▲ ■	■ ■
PC/PBT	● ■	● ●	● ●
ELCRES CRX7412U RESIN	● ▲	● ●	● ▲
ELCRES NPCRX9612U RESIN	● ●	● ●	● ●

Compatibility color rating	Yield stress retention (σ_y)	Elongation at break retention (ε_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

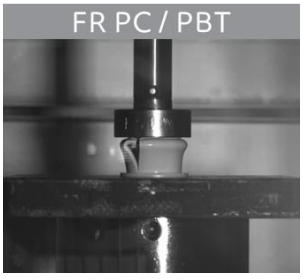
CUSTOM COLORS
Color matching to support design or branding needs

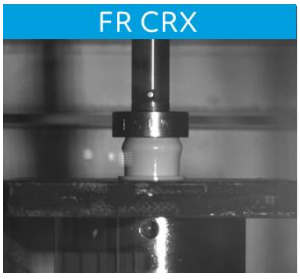
PROCESSABILITY
Thin wall for light weight designs, miniaturization

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

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

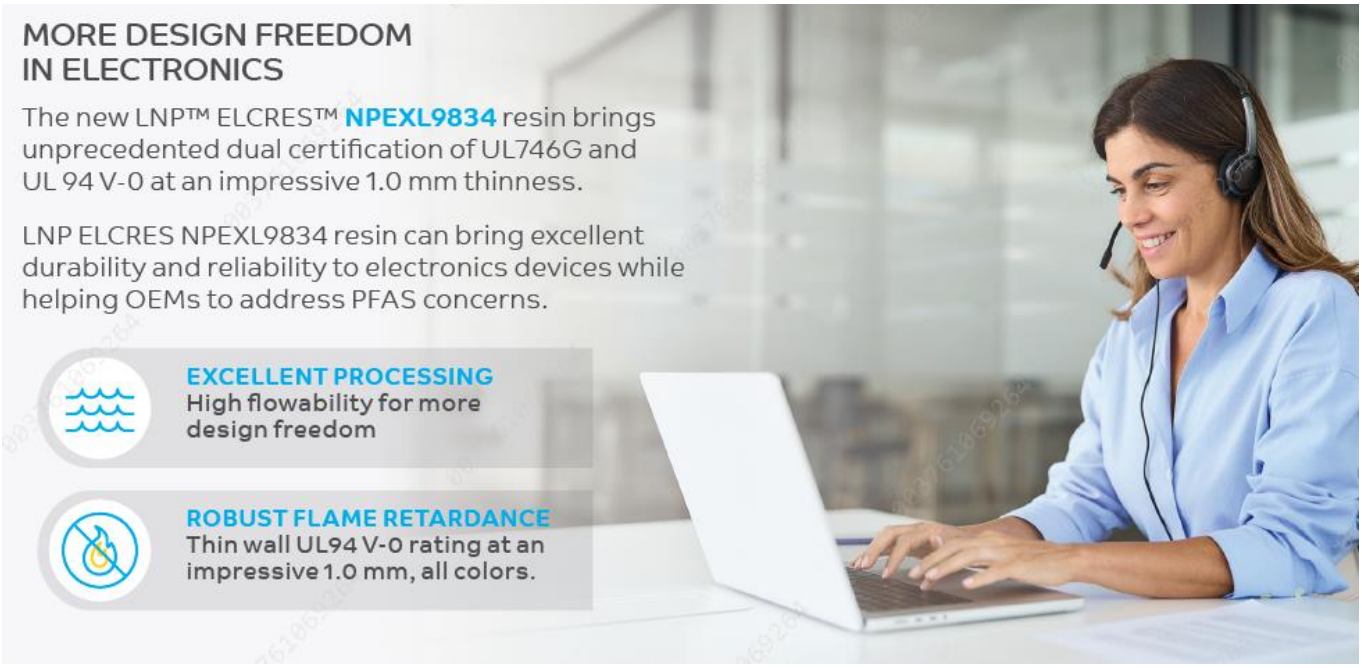
In addition to the NPCRX9612U resins, the following grades are commercially available.

LNP™ ELCRES™ RESINS	UL94 V-0 @ 1.0mm	High flow (MVR 24) Low temp ductility (-40°C)	NPEXL9834
	UL94 V-0 @ 1.5mm	Standard flow (MVR 7) 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

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MEDICAL DEVICES