ANOTHER STEP TOWARDS CIRCULAR ECONOMY

POST-CONSUMER RECYCLED LEXAN™ FILM SOLUTIONS

LEXAN™ FILM

POLYVANTIS

LEXAN™ PCR EFR FILM SOLUTIONS

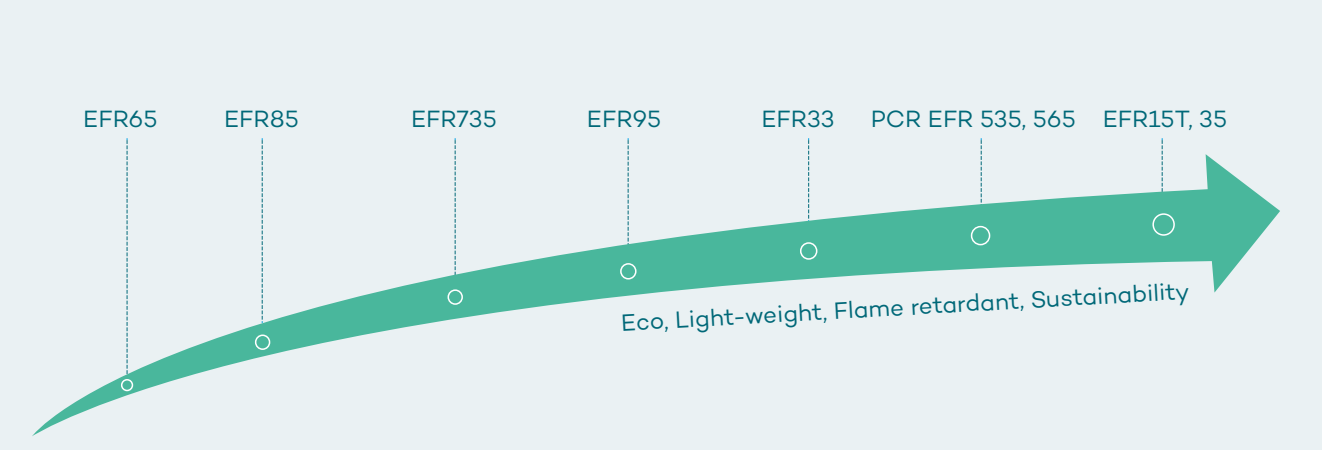
New **LEXAN™ EFR535** (30% PCR) and **EFR565** (60% PCR) are PCR flame-retardant polycarbonate films, presenting excellent eco solutions for global **Electrical & Electronics** manufacturers to go beyond current ecological directives by voluntarily eliminating halogenated additives in their products. These new films provide excellent EFR technology in non-Bromine and Chlorine.

LEXAN PCR NON-FR FILM SOLUTIONS

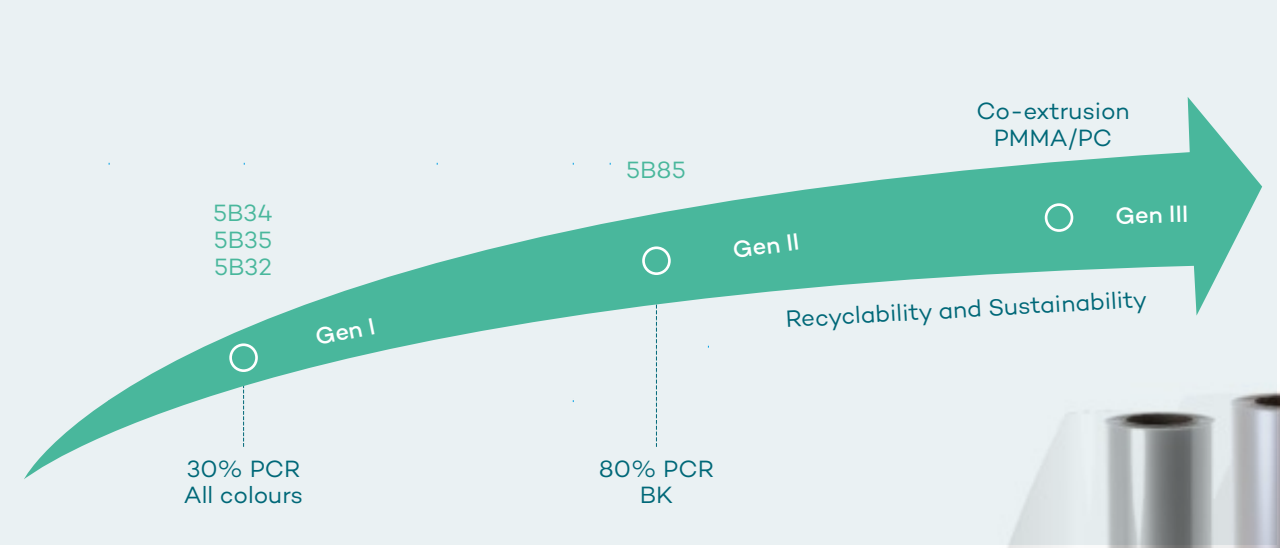
LEXAN™ **Non-FR PCR PC** films are made of 30% to 80% PCR resins, which can deliver 25~ 50% more reduction in carbon footprint depending on the grade and are available with two sides textured or one side polished / one side textured surface.

This Post-Consumer recycled polycarbonate film offers high-temperature resistance, significant dimensional stability, and excellent printability (no need for pretreatment). It is a suitable solution for multi-layer printing and can be screen printed using traditional solvent-based or water-based inks and UV or infrared drying inks.

POLYVANTIS' LEXAN™ EFR FILM EVOLUTION



NON-FR PCR FILM GRADES



BENEFITS:

EXCELLENT ELECTRICAL AND MECHANICAL PROPERTIES

HIGH CHEMICAL AND HYDROLYTIC RESISTANCE

UL-94 RECOGNITION, VTM-0 TO V-0

COMPATIBILITY WITH ADHESIVES

OPTIMAL DIMENSIONAL STABILITY AT HIGH TEMPERATURES

ECO FLAME RETARDANT

EXCELLENT PUNCTURE RESISTANCE

NO CHLORINE OR BROMINE COMPLIANCE

POTENTIAL APPLICATIONS:

- Battery packs and adaptors for computers, laptops, mobile phones
- Heat/dielectric shielding and insulation barriers
- Die-cut insulators and spacers
- Labels and overlays e.g. home appliances

BENEFITS:

EXCELLENT DIMENSIONAL STABILITY

HIGH IMPACT RESISTANCE

EASE OF THERMOFORMING, HYDRO-FORMING, AND BENDING

EASE OF EMBOSSING AND DIE-CUTTING

SCRATCH AND WEAR RESISTANCE ON TEXTURED SIDES AND MAR RESISTANCE ON POLISHED SIDE

PRINTABILITY WITHOUT PRE-TREATMENT

POTENTIAL APPLICATIONS:

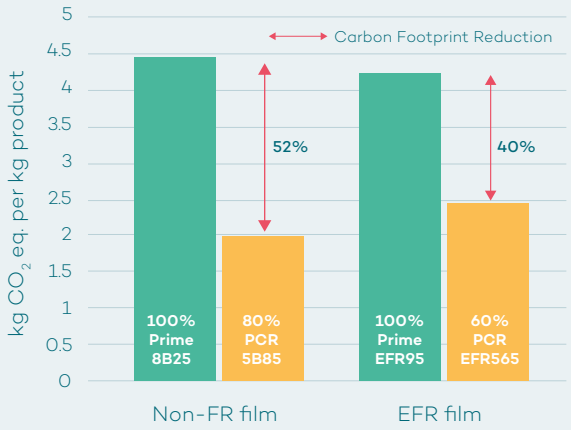
- Multi-layer printing applications, such as overlays
- High-performance labeling for home appliances
- Suitable for forming and die-cutting
- Suitable for screen printing
- LED / LCD or displays for audio and video equipment
- Automotive dashboard and interior applications

POLYVANTIS introduces a new portfolio of Post-Consumer Recycled films, the latest addition to LEXAN™ polycarbonate film for high-end sustainable solutions, to meet the global recycling challenges.

POLYVANTIS' vision for the future involves a world where plastics never end up in our environment, landfills or oceans. To integrate different dimensions of sustainability into the business's core strategy, our scientists are continually striving to find innovative ways to recycle plastics and remake them into new products to reduce the global environmental footprint.

As part of our sustainability portfolio, showcasing our circular innovations, we produce LEXAN™ EFR and non-FR film portfolio from Post-Consumer Recycled (PCR) resins that offer equivalent performance to our virgin polycarbonate films.

ENVIRONMENTAL IMPACT OF PCR FILM SOLUTIONS*



* Global Warming Potential IPCC 2013 GWP 100a V1.03

LEXAN POLYCARBONATE FILM MADE OF PCR (POST-CONSUMER RECYCLED) RESINS

PCR NON-FR FILM

- Non Flame Retardant film
- Printability without pre-treatment
- Easy thermoforming and hydro-forming
- Suitable for printing and labeling applications

PCR EFR FILM

- Eco and flame-retardant film
- UL-94 recognition (VTM-0 to V-0)
- Suitable for electrical & electronics industry e.g. EV battery packs

PCR FILM EID GRADES

At POLYVANTIS we are leading the way in sustainability with our LEXAN™ SD film portfolio made with 30% to 70% Post-Consumer Recycled (PCR) film. These eco-conscious films specially designed for electronic ID cards, government, military and police ID cards, passport data pages, green cards, and driver's licenses provide the perfect balance between performance, durability, and environmental responsibility.

BENEFITS:

- High temperature resistance
- Low and controlled shrinkage for improved flatness before and after printing and lamination
- Surface textures optimized for printing, hot stamping and lamination
- Tight gauge tolerance for controlled stack tolerance after lamination
- High optical quality films, manufactured in a clean room environment
- Maximized opacity in white layer to enhance ability to hide embedded security devices at thin gauges
- High contrast laser markability of the clear laser markable film

GRADES:

SD5B34-112:	30% PCR clear color
SD5B74-8G9B2161:	70% PCR white color
SD5B34-1G9B4380T:	30% PCR laser markable

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www.polyvantis.com

LEXAN™ POLYCARBONATE FILM & SHEET | Tough, Virtually Unbreakable