



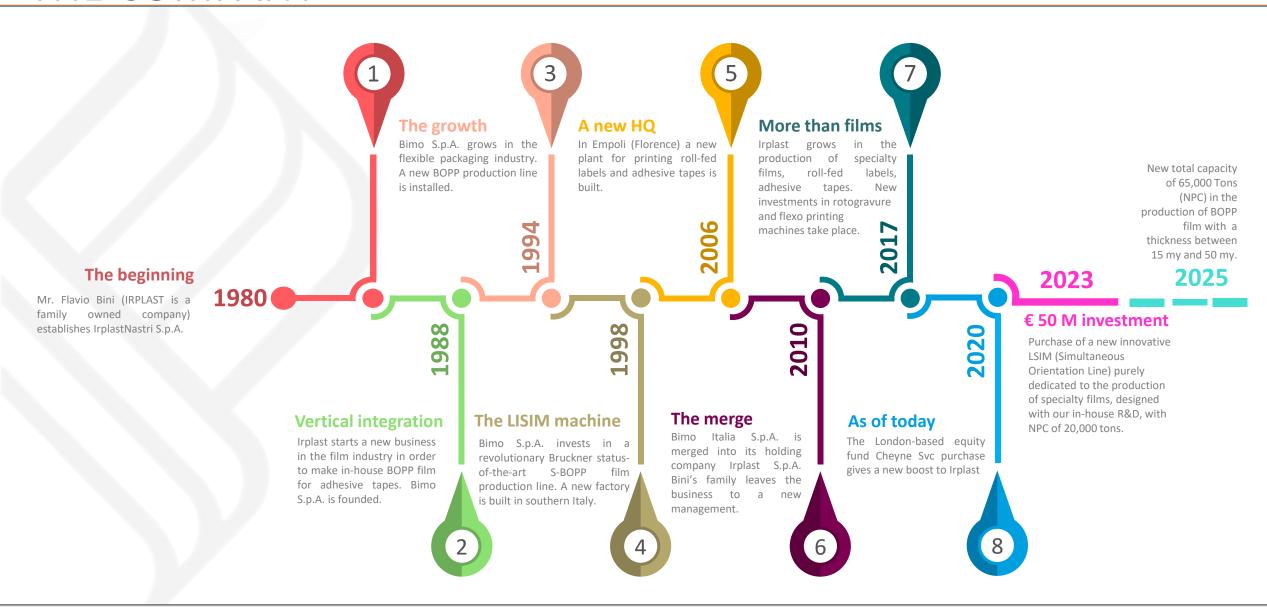
THE COMPANY

PRODUCTS OVERVIEW, CAPACITY

PRODUCTION PROCESSES, CAPACITY & INVESTMENTS

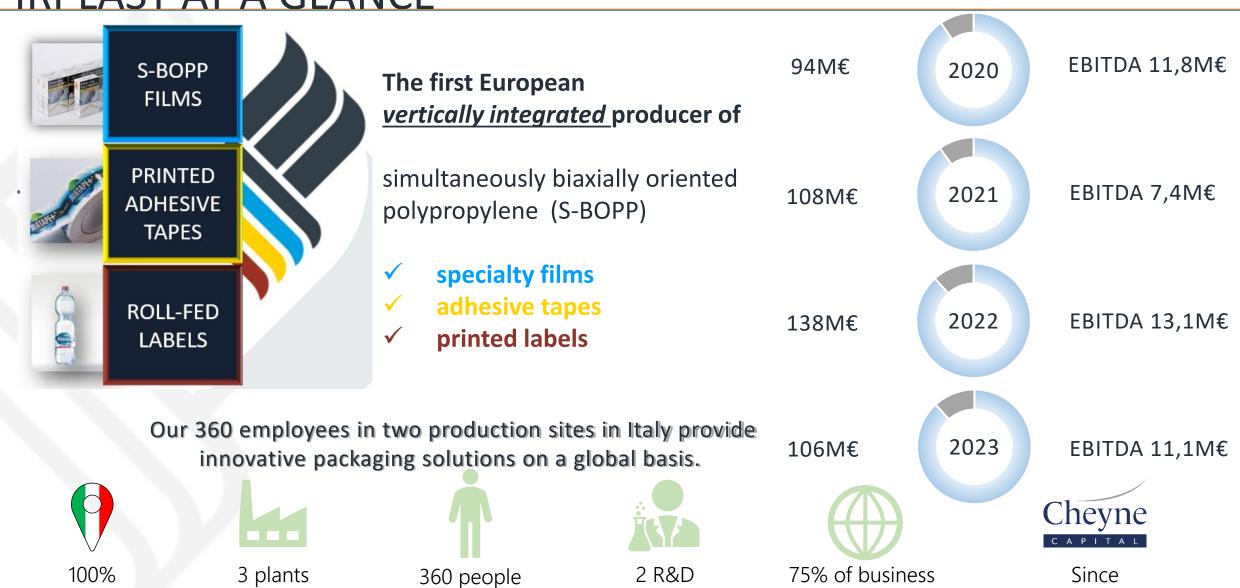
CERTIFICATIONS, R&D, TECHNICAL ASSISTANCE

THE COMPANY



IRPLAST AT A GLANCE

Made in Italy



<u>Departments</u>

delivered worldwide

Sept. 2020

PRODUCTION SITES

PRINTING LABELS / ADHESIVE TAPES **EMPOLI (FI), ITALY**



EMPOLI Firenze

80,000 sqm (26,000 sqm indoor)_{IRPLAST S.p.A}

- N. 8 printing machines
- N. 4 coating machines







Total Production Capacity: 44,000 TONS/



100,000 sqm (40,000 sqm indoor)

2025 PRODUCTION SITE TOTAL NEW PRODUCTION CAPACITY APPROX. 64,000 TONS / YEAR







BOPP FILM PRODUCTION SITE







SOPP FILM EXTRUSION

ATESSA (CH), ITALY







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PRODUCTS OVERVIEW

BOPP FILM DIVISION

aka BIMO

TOBACCO



BOPP or S-BOPP film for cigarette pack wrap or clear collation



Peelable films, shrinkable films, envelope window films, film for labels, clear and metalized films for snacks and bakery laminates, S-BOPP specialty films for customized applications

PRODUCTS OVERVIEW PRINT TAPE DIVISION

GREEN LINE

100% RECYCLABLE - Cores and boxes

made from 100% recycled paper

Carton sealing

Specialty products

ACRYLIC

EXTRAGLUE+

OPEN & CLOSE

FOOD CONTACT









HOTMELT

TACK+

TAMPER EVIDENT

SPOOL TAPE









NOPP+

NOPP

LOOPP

AIRTAPE+

ECO+80

ECO+50

POLY+















LABELS & MULTIPACK SOLUTIONS LABEL TECH DIVISION

ROLL-FED



- White or transparent support
- Ultrathin thickness available

PRE-GLUED



Roll fed labels with • glue applied

PRE-GLUED SHRINKABLE



Pre-glued labels on **Shrinkable BOPP**

MULTIPACK SOLUTIONS



- Adhesive bundles for multipack.
- Removable adhesive.
- Green solution to reduce plastic.

SHRINK SLEEVES



- **PETG films**
- **Tamper evident seal**
- **Full-body covering**



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PRODUCTION PROCESS – BOPP film division

BOPP & S-BOPP FILM EXTRUSION LINES



Production capacity: 44,000 tons per year (2 factories)

Equipment:

- n.1 Brückner LISIM S-BOPP film 6,6m line
- n.2 Tender-frame traditional BOPP film 7,2m lines

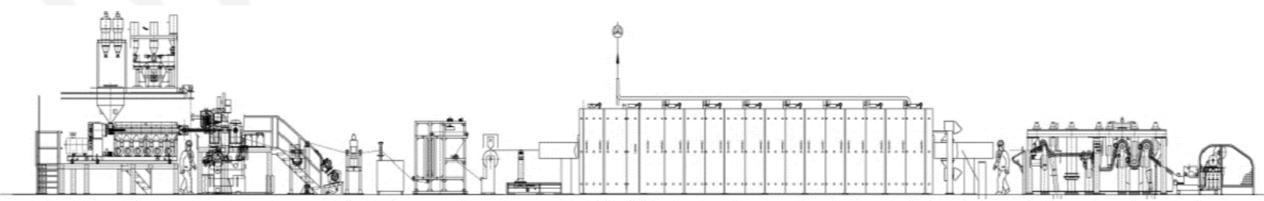
AUTOMATIC SECONDARY SLITTERS



Slitting Capacity: 50 tons per day

Equipment:

- n.2 Kampf
- n.6 Technicol



PRODUCTION PROCESS

ROTOGRAVURE PRINTING







COATING & SLITTING



STORAGE & LOGISTICS



- N.2 rotogravure printing machines
- BOBST 4003MP (up to 10 colours, 450m/min)
- BOBST ROTOMEC RS4000

- N. 2 Bobst (8 colours)
- N. 2 Uteco (8 colours)
- N. 4 Stack (2 colours)
- N.16 Slitters
- N. 1 laminating machine
- N. 1 laminating/coating machine
- N. 4 coating machines (3 acrylic, 1 hotmelt)
- N.2 DCM shrink sleeve seamers
- N.1 BabyCat sleeve inspection machine

- N. 9000 pallet slots
 (ASRS System Logistics)
- Automated warehouse
- Automated guided vehicles logistic system for semifinished products







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CERTIFICATIONS

ECOVADIS

IRPLAST SPA

has been awarded a

Gold medal

as a recognition of their EcoVadis Rating

- MARCH 2023-







Packaging Materials

CERTIFICATED









9001: 2015

14001:2015





Sedex Members Ethical Trade Audit Report















RESEARCH & DEVELOPMENT – TECHNICAL ASSISTANCE – QUALITY CONTROL

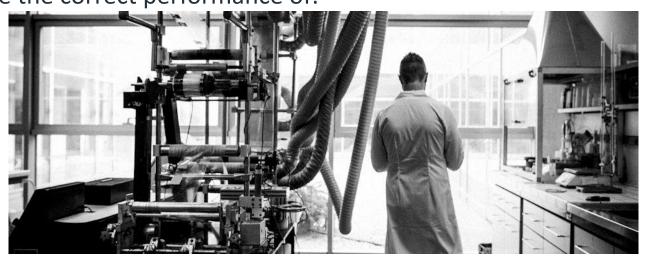
Integrated R&D structure: n.2 synergic in-house laboratories, equipped with sophisticated instruments.

- Analysis of physicochemical, mechanical and optical properties of plastic films
- Analysis and characterization of inks and adhesives
- Co-engineering activities with the principal stakeholders
- New product design & prototyping
- Statistical monitoring of performance indicators



Technical assistance at end-users' plants to guarantee the correct performance of:

- Film on packing machines
- Adhesive tapes on carton sealing machines
- Labels and bundle tapes on labelling machines
- Shrink Sleeves on sleeving machines





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IRPLAST APPROACH TO SUSTAINABILITY PROCESSES, PRODUCTS

Thanks to a **forward-looking focus on innovation**Irplast's products can become part of the solution to the World's plastic consumption.

First we've reduced the environmental impact of our manufacturing processes.

NOW our customers are benefiting from
environmentally sustainable flexible packaging
available using bio-based and PCW-based resins,
which both dramatically reduce fossil-fuel
consumption and offer step-changes for the circular
economy of plastic recycling.



IRPLAST APPROACH TO SUSTAINABILITY

PROCESSES, PRODUCTS

RECYCLE



- BOPP, a material
 100 % designed for recycling:
 80 % to the market, 20 % scrap
 (15 % internal recycle, 4,7 % recycled, 0,3 % actual waste)
- high quality r-pet requires inks and adhesives not to stain pet flakes during recycling process

REUSE



 Pre-guled labels for returnable pet bottle (e.g. ECORELABEL project)



REDUCE



- LESS CO₂ (70% selfgenerated electricity, self-% generated cooling/thermal power energy)
- LESS CO₂ supply chain
- LESS raw material usage
- down-gauging film thickness
- 95% reduction of packaging material

RENEWABLE



Using raw materials from renewable sources (tall-oil) or from chemically recycled post-consumer waste (by pyrolysis) allows IRPLAST to reduce CO2 emissions, reduce fossil fuel consumption, and make a valuable contribution to kick-starting the circular economy for plastic usage (NOPP and LOOPP films).



*PP carbon footprint -24% vs PET: switching from 1 ton of PET to 1 ton of PP gives a saving of 1t in CO2 emissions



- -35% CO2 emissions
- with 34% of post-industrial recycled BOPP film









ISCC PLUS CERTIFICATION

Any retailer wishing to distribute these **ISCC-certified** products must be certified by ISCC to guarantee the chain of custody from the feedstock producer to the film manufacturer to packaging supplies.

IRPLAST NOPP films range is food contact approved and 100% ready to be recycled.

ON PACKAGING

If all parties in the supply chain are using ISCC PLUS certified films like NOPP or LOOPP, the packaging can show the ISCC logo as a guarantee of the integrity of the whole process, gaining the trust of the final consumer.



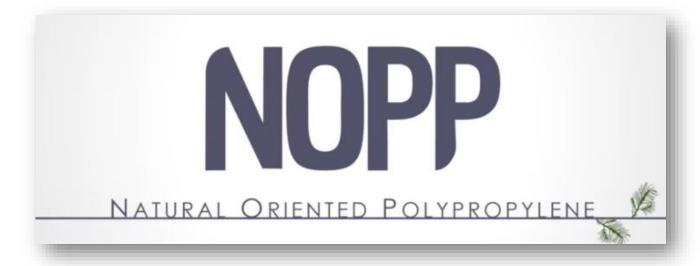
ISCC PLUS





NOPP - A LOWER EMISSIONS BOPP FILM

Irplast Natural Oriented PolyPropylene films is carbon neutral by replacing fossil fuels, in the production of polypropylene resin made from ISCC PLUS certified renewable sources, with bio-based feedstock (tall oil), following the mass balance approach.



The waste vegetable oils are not of animal origin and do not compete with the food chain as they are a recovered by-product of the responsibly managed northern European forest industry.

Watch this video here.

GHG emission takeout global warming



NOPP film manufactured by Irplast is

CARBON NEUTRAL

thanks to the ${\rm CO_2}$ sink provided by the forests and the virtuous recovery of the by-product, replacing 1Kg of traditional fossilbased BOPP removes approximately 4Kg of ${\rm CO_2}$ eq from greenhouse gas emissions into the environment.

*LCA by Spinlife, a spin-off company of Padua University (Italy)

NOPP+: U.C.O. LOW EMISSIONS BOPP FILM

- UCO refers to oil which has been used to cook food for human consumption
- UCO are high value outlet for restaurant or food industry oils that no longer meet the quality standards for human consumption
- It's promoted the collection of UCO instead of discarding them with wastewater.

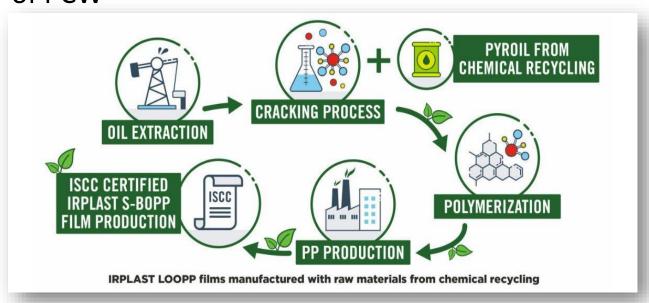




- The waste vegetable oils are not of animal origin and do not compete with the food chain
- Resins are made with residual by-products of vegetal origin which avoid specific agricultural land use (no-ILUC) and animal derivates.

LOOPP FILMS - RECYCLED FOOD CONTACT BOPP FILM

LOOPP films are realized with raw materials coming from the chemical recycling process of PCW-



The mixed post-consumer plastic waste is collected by municipalities from household collection schemes in the EU

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Using these films allows IRPLAST and our Customers to participate in the circular economy, and to kick-start the vital scale-up of the chemical recycling industry.

From producer to customer, from customer to producer. Circular. LOOPP.



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