

Ducor Petrochemicals

DuCare and ISCC PLUS – Sustainable PP Solutions for Healthcare and Life Science Applications

ORIGINALLY DELIVERED AT THE **FESTIVAL OF POLYMER INNOVATION 2024**
VISIT [HTTPS://WWW.POLYMERFESTIVAL.COM](https://www.polymerfestival.com) FOR MORE INFORMATION

A HUGE THANK YOU TO PLASTIKCITY FOR SPONSORING OUR MAINSTAGE

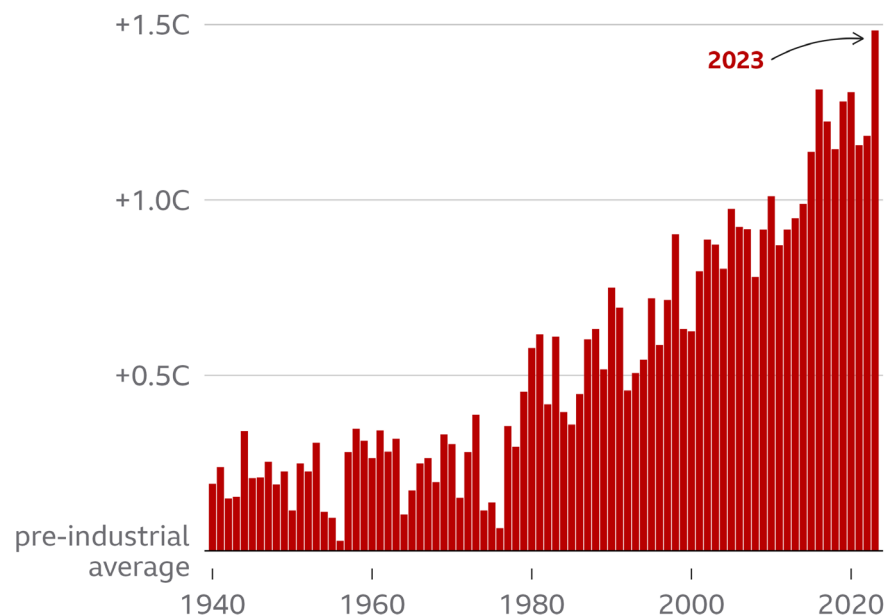
PLASTIKCITY



Global warming and Carbon Dioxide

Hottest year on record

Global average temperature by year, compared with pre-industrial average (1850-1900)

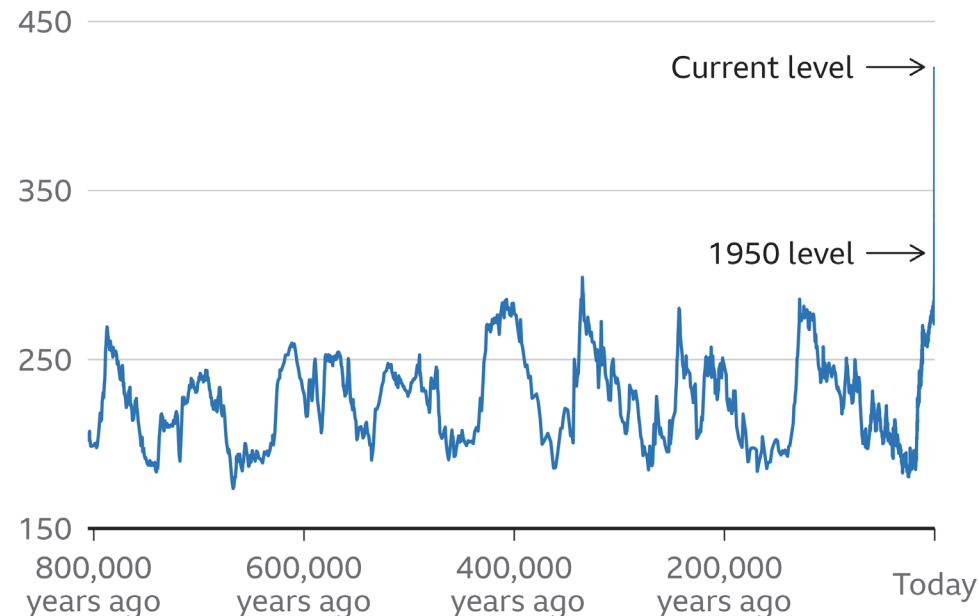


Source: ERA5, C3S/ECMWF

B B C

Carbon dioxide levels are higher than any time in the last 800,000 years

Atmospheric CO2 concentrations, parts per million



Source: NOAA/Bereiter et al., 2015

B B C

Clinical waste production & net zero carbon

Waste and emissions

- **4.4% of all** greenhouse gas emissions and over **5 million tonnes** of waste come from hospitals (globally)
- 25% is plastics, of which approx. 70% is single use (PPE, Syringes etc)

NHS targets NET ZERO by 2040 (for its core emissions)

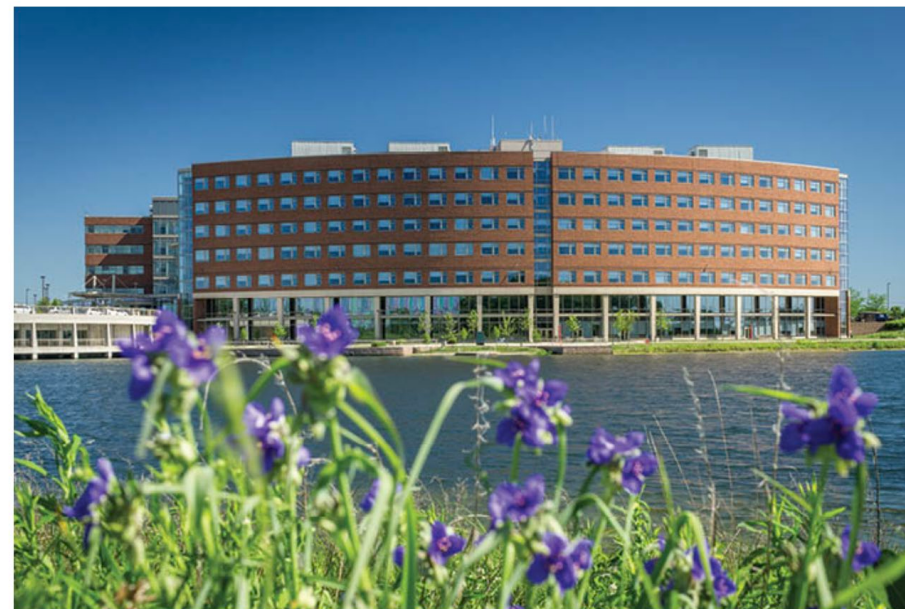
- **156 000 tonnes**: Clinical waste from the NHS
- **100 000 tonnes** of CO₂e per year: Carbon impact from NHS waste
- **133 000 tonnes** of plastics per year: Consumption by the NHS

Erasmus MC Rotterdam – 50% CO₂e reduction by 2030

Hospitals reduce their carbon footprints with sustainable solutions

From on-site renewable energy to LEED designed buildings, hospitals across the country are joining in the decarbonization movement

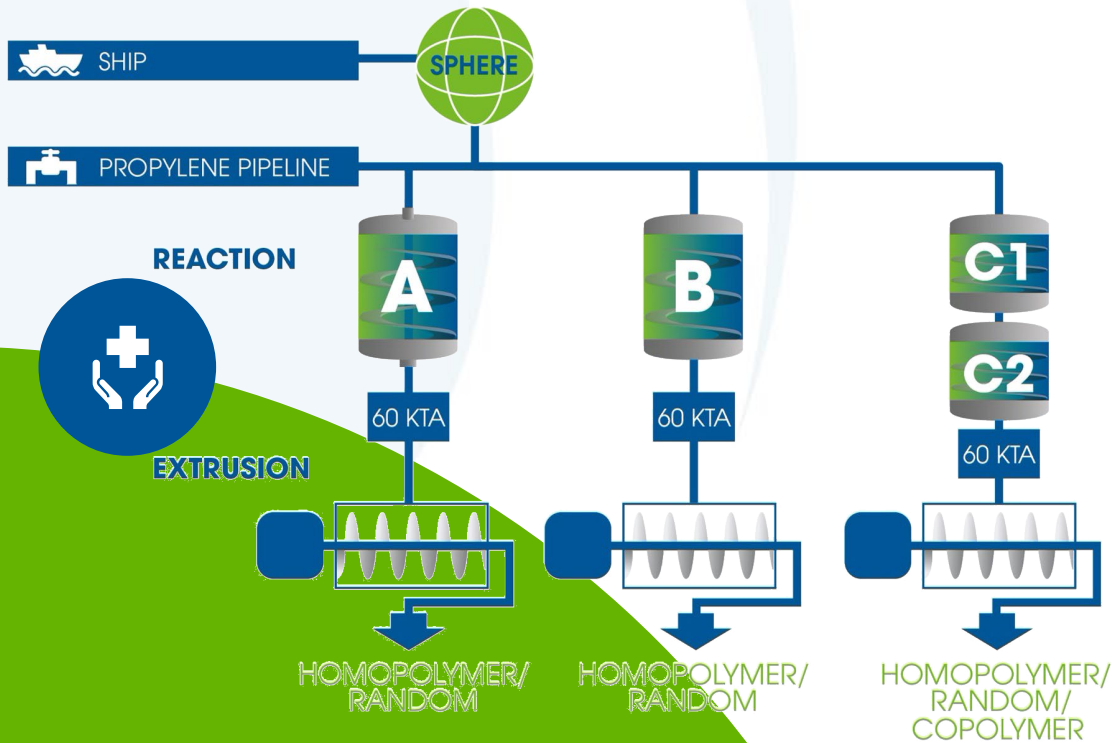
August 31, 2021 | Beth Burmahl



Reducing CO₂ is critical – also in medical applications



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About Us

...

- 180Kt of Polypropylene
- Novolen Gas Phase Technology
- 3 production lines
- Port of Rotterdam
- Security of supply
- Product development + Custom Products
- Dedicated & long term commitment

www.ducorchem.com





DuCare

Control | Consistency | Conformance



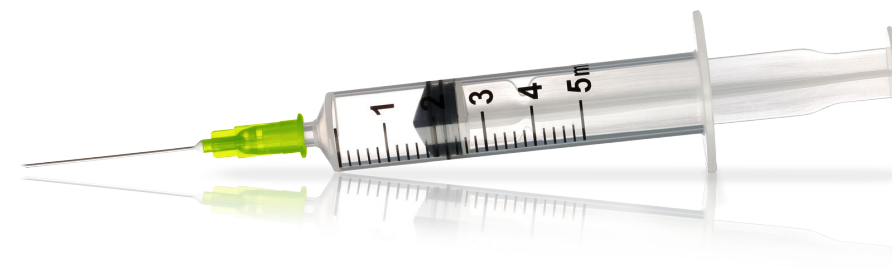
DuCare

ISO 13485 certified

ISCC PLUS certified

DuCare: Medical Polypropylene

- ✓ Regulatory Compliance
- ✓ Three core principles of DuCare:
Control, Consistency, Conformance
- ✓ No Change agreements
- ✓ Co-Creation from 400 Mt/ year



Sustainable Feedstock Solutions

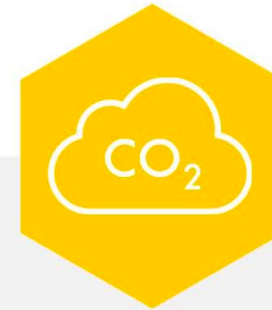
Shell Chemicals Sustainable Solutions Portfolio



Circular



Bio



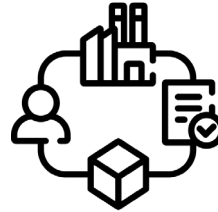
Lower Carbon

- Suite of solutions designed decrease waste and increase renewables use, while reducing carbon emissions.
- Flexibility and scale to meet your immediate and long term formulation requirements.
- Certified and transparent assurance processes to meet sustainable sourcing needs.

Why use ISCC PLUS Certification?



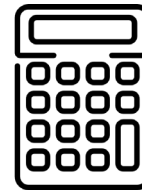
Raw material Identity
(e.g. waste and residue vs. virgin)



Correct volumes and conversion factors throughout entire value chain



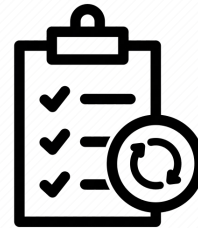
Traceability



Appropriate carbon intensity calculations



Correct use of mass balance calculations and attribution approaches



Certification Allows Credible:

1. Determination of recycling rates
2. Reporting
3. Claims towards customers, consumers and stakeholders
4. On-product ISCC logos use (>20% content)



Ducor ISCC PLUS Benefits

- **No Compromise on Product Properties**
(use for consumer packaging, medical, automotive and other industries)
- **Identical Product Specifications**
(No adjustment in production or product)
- **Supports Compliance and Regulations***
(*Food and Pharma regulations)
- **Limits the Potential Migration of Unknown Substances**
(Compared to Mechanical Recycling)

Reduced CO2 footprint – with DuCare



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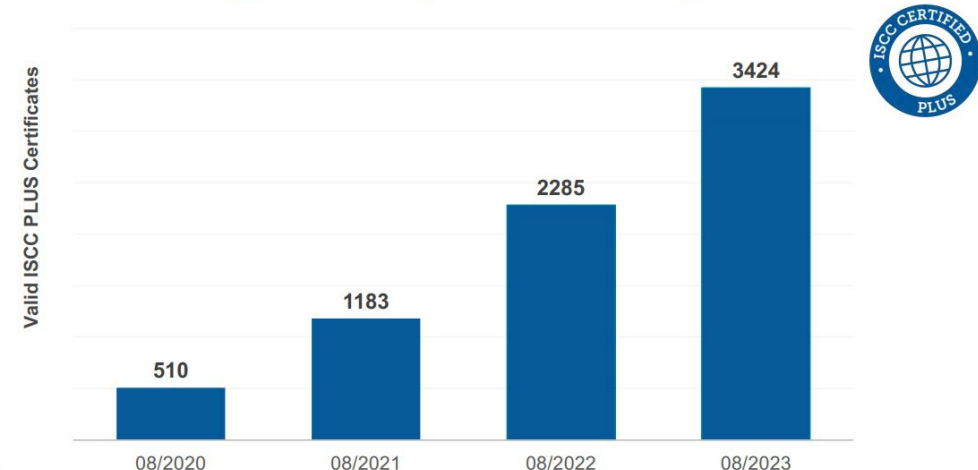
Brand owners become ISCC PLUS Certified



ISCC PLUS covers all types of final markets



The amount of ISCC PLUS certified companies has increased significantly for several years



Reducing CO2

**DuCare Medical
Solutions**

**Plastribution & Ducor
Unlocking sustainable medical solutions**



HOW CAN WE HELP?

**SUSTAINABLE SOLUTIONS
LONGTERM PARTNERSHIPS**



Q&A

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