



General Purpose Plasticizer

OxoviflexTM

Make it flex!

OxoplastTM
flexible opportunities

>99,5%
DOTP
Superior
Purity


Phthalate
Free


EU 10/2011
Compliant


Pharmacopoeia
Approved


Quality
Monomeric


**GRUPA
azoty**

Product Characteristics

Oxoviflex™ is the flagship plasticizer of Segment Oxoplast™. Oxoviflex™ is manufactured on a dedicated production plant utilizing strictly controlled technology conditions. Therefore Oxoviflex™ is min. 99,5 DOTP and does not contain acidic catalyst residues, methanol or phthalates, which has a positive effect on its processing and finished product durability and working parameters.

Oxoviflex™ is produced using our high quality 2-EH. It is manufactured according to a proven technology which guarantees its highest quality and production stability.



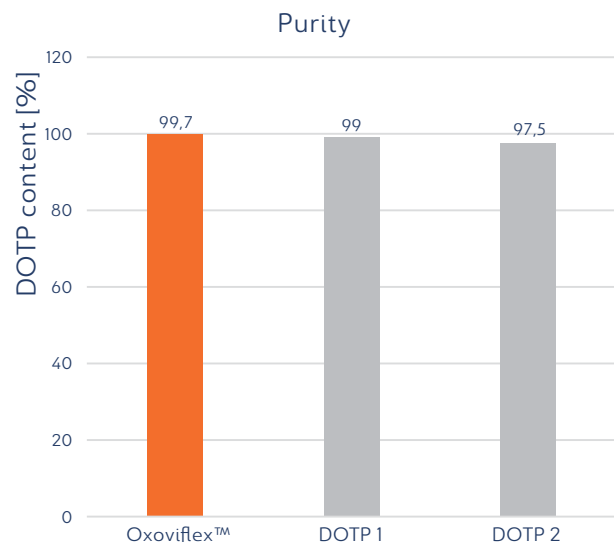
No. 1
in DOTP production
in the European Union

- Dedicated production plant
- No phthalate impurities
- Stable and repeatable product quality



Oxoviflex™:

- General purpose plasticizer for wide range of applications
- The best alternative for phthalate plasticizers
- European Pharmacopoeia approved
- Food contact and toys approved
- High quality (min. 99,5% DOTP)
- Compatible with the Oxofine™ specialty plasticizers



Applications

OxoviflexTM is recommended for:



wires & cables



PVC flooring



food contact
materials



fabrics



wallpapers



garden hoses



automotive



medical devices



paints and
varnishes



toys



footwear

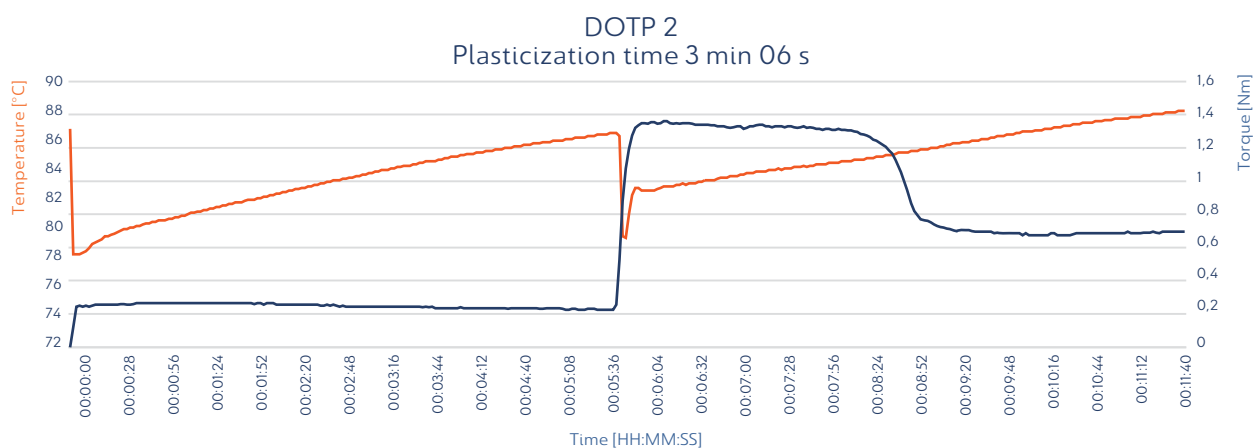
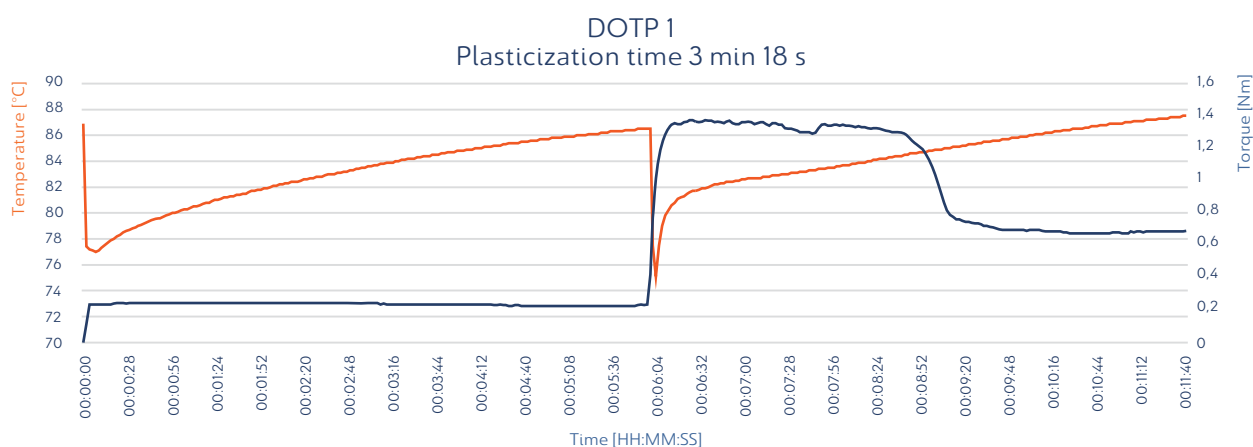
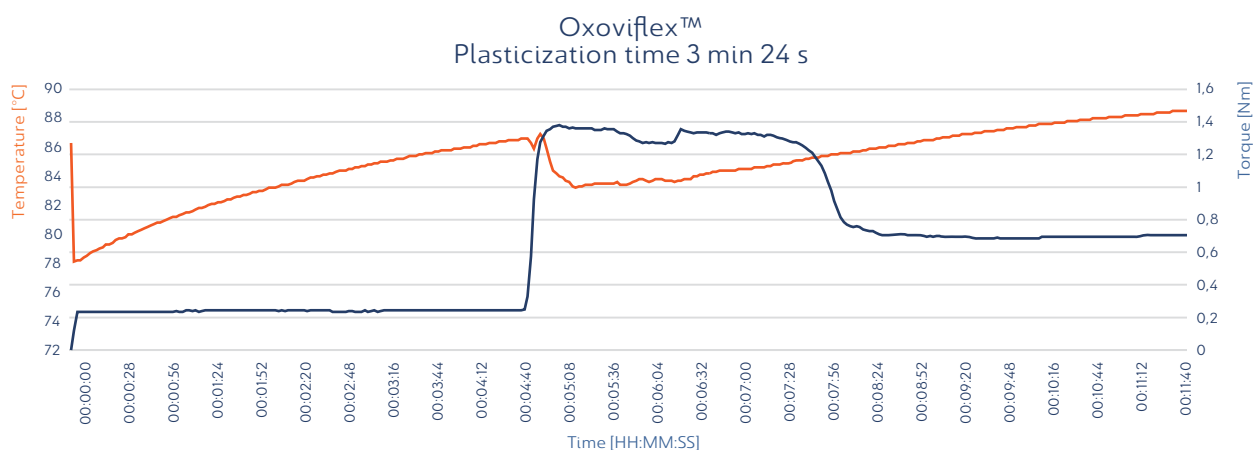
Application tests

Our products undergo thorough application tests in our advanced and fully equipped **Laboratory of Research and Innovation Department**, in which we test plasticizer performance in polymer processing.



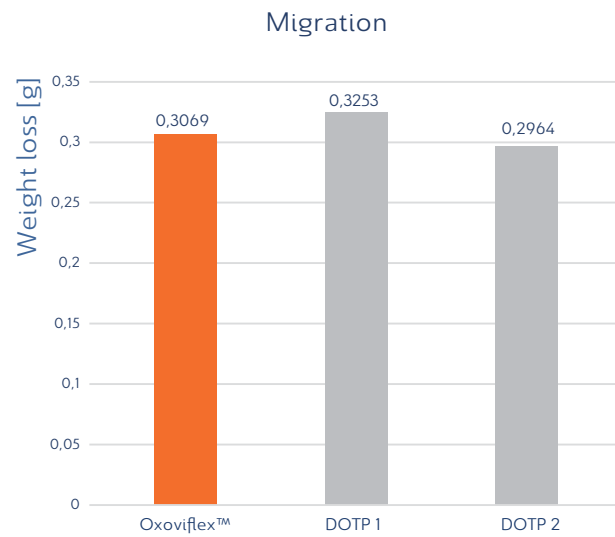
Plasticization time

Oxoviflex™ is one of the best DOTPs available on the market and provides converters with good plasticizing capabilities.



Migration

Oxoviflex™ migration is within the standard range of DOTPs available on the market.



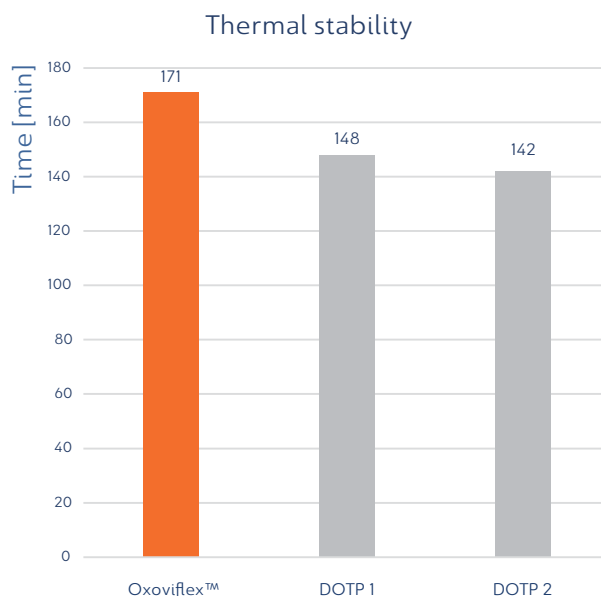
Hardness

Products manufactured with the use of DOTP demonstrate higher hardness compared to products formulated with other general purpose plasticizers. Oxoviflex™ is the purest plasticizer with the lowest content of other (redundant) components, which - in terms of processing - should be considered impurities.



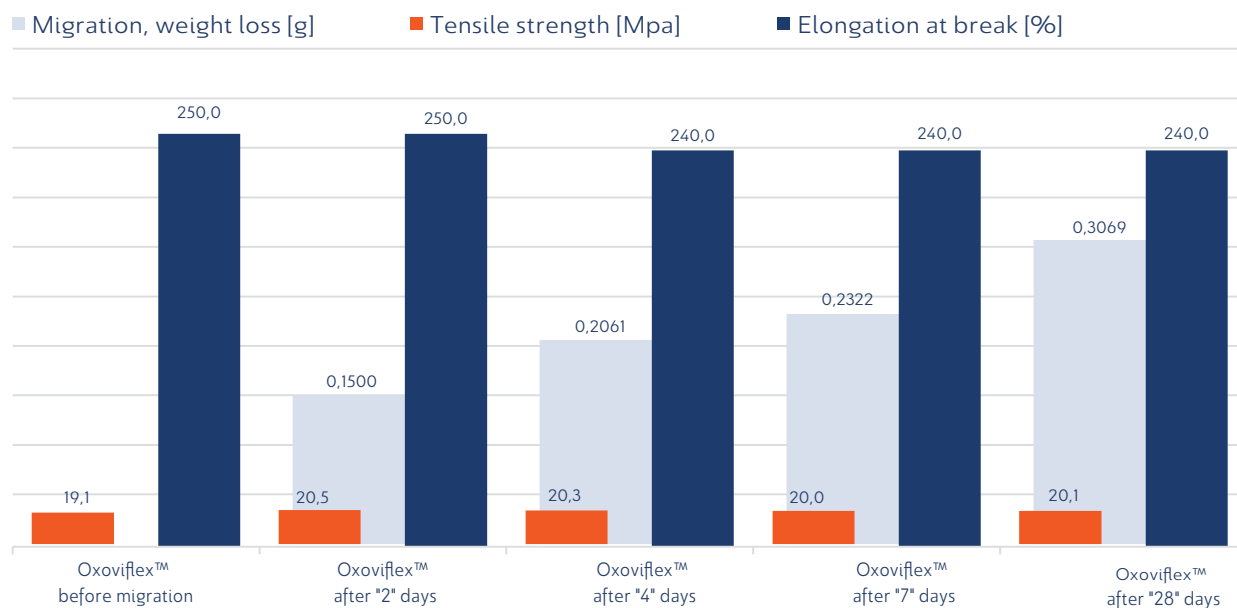
Thermal stability

Thanks to lowest content of impurities, Oxoviflex™ has highest thermal stability among DOTPs. Oxoviflex™ is also one of the most high temperature resistant plasticizers.



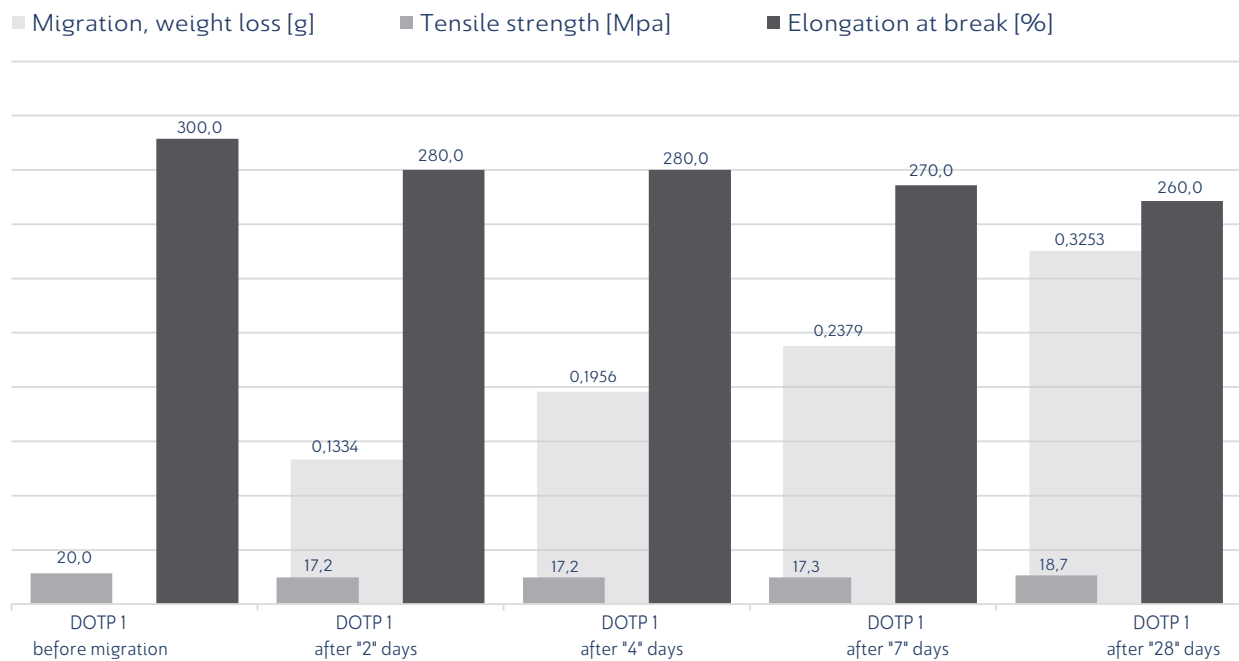
Strength parameters

Oxoviflex™ provides highest max breaking stress of PVC products compared to other monometric plasticizers. Finished products will demonstrate high mechanical resistance. In addition, the Oxoviflex™-based material improves durability during product use.



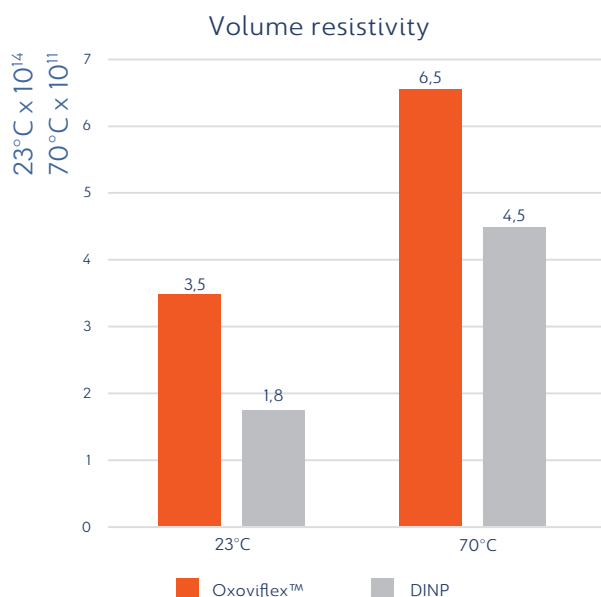
Effect of impurities on strength parameters

Higher plasticizer impurity content worsens finished product durability. This is an undesired phenomenon constraining product design and its long life use.



Electrical resistivity

Oxoviflex™ is the only monomeric plasticizer used in cables that provides such favourable **electrical resistivity** and reduces the risk of avalanche breakdown.



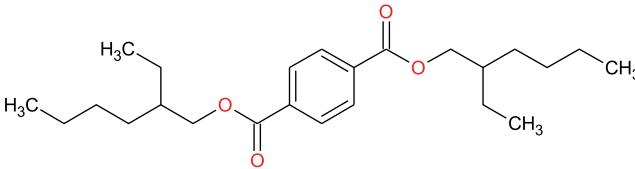
Specification

Physical and chemical requirements

Item	Parameter		Value	Unit	Test method	Foreign equivalent
1	Colour	max.	20	[Pt-Co]	PN-C-04534-01:1981 PN-EN ISO 6271:2016-01	ISO 2211 ISO 6271
2	Flash point	min.	230	[°C]	PN-EN ISO 2592:2017-10	ISO 2592
3	Volatile organic compounds (VOC)	max.	0.15	[wt %]	PN-EN ISO 11890-2:2013-06	ISO 11890-2:2013-06
4	Bis(2-ethylhexyl) terephthalate	min.	99.5	[wt %]	Internal method of Grupa Azoty ZAK S.A. (GC; % by area)	GC (% by area)
5	Density at 20°C	min. max.	0.980 0.985	[g/cm³]	PN-EN ISO 12185:2002	ISO 12185
6	Free acids as phthalic acid	max.	0.01	[wt %]	PN-C-89401:1988 ASTM D1045 - 14	ASTM 1045 - 14
7	Water content	max.	0.05	[wt %]	PN-ISO 760:2001 PN-EN ISO 12937: 2005	ISO 760 EN ISO 12937
8	2-Ethylhexanol content	max.	0.05	[wt %]	Internal method of Grupa Azoty ZAK S.A. (GC; % by area)	GC (% by area)

Regulatory information

Oxoviflex™ is not subject to legal and application restrictions - it is not a hazardous substance in accordance with the classification criteria laid down in the CLP/GHS Regulation. In addition, it is not a hazardous substance pursuant to RID/ADR. Oxoviflex™ is colourless, oily liquid containing no mechanical impurities. It is REACH registered pursuant to Regulation (EC) No. 1907/2006.

Commercial name:	Oxoviflex™
Chemical name:	Bis(2-ethylhexyl) terephthalate
CN:	2917 39 95
CAS:	6422-86-2
Polish Classification of Goods and Services (PCGS):	20.14.34.0
Structural formula:	



Sales and logistics:

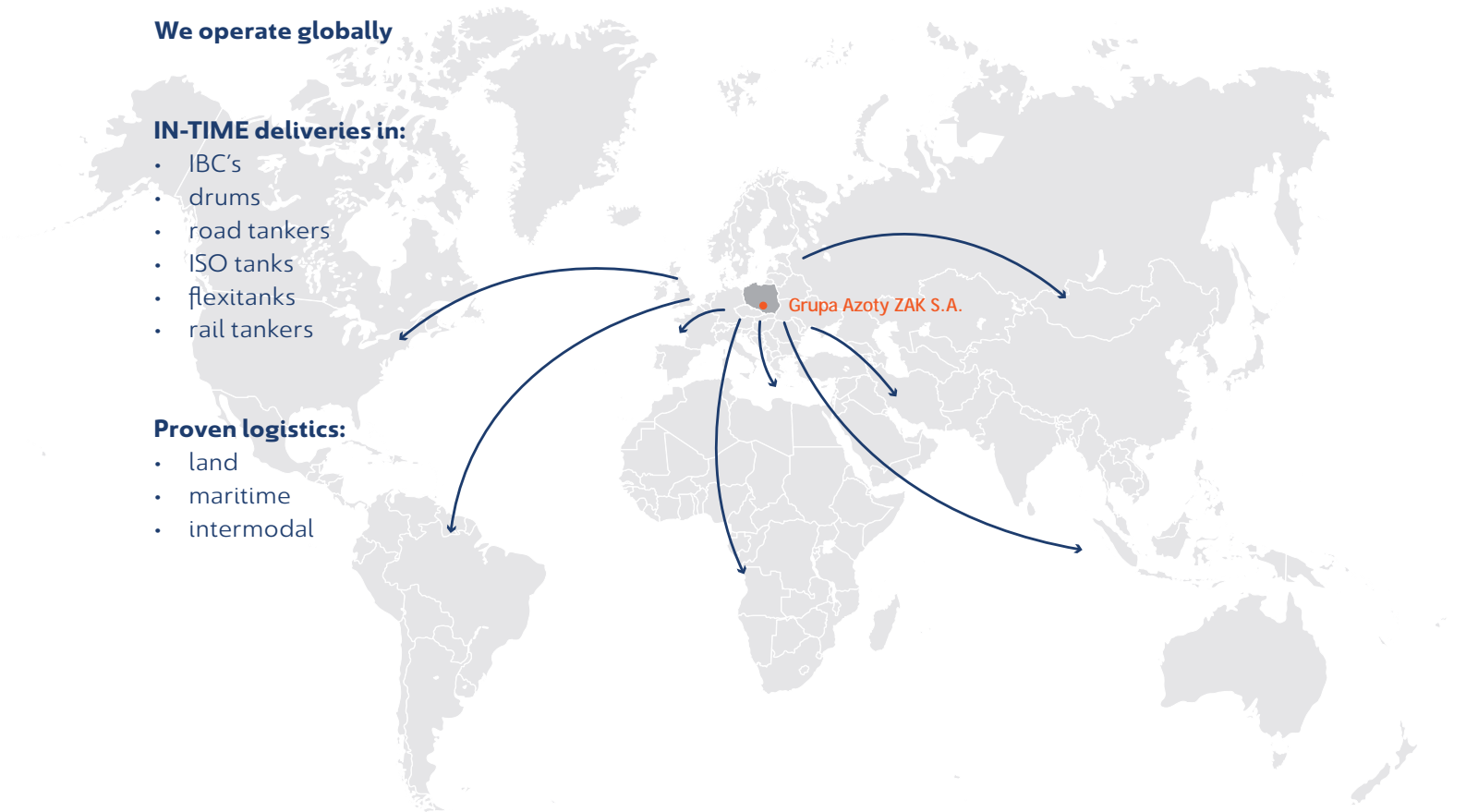
We operate globally

IN-TIME deliveries in:

- IBC's
- drums
- road tankers
- ISO tanks
- flexitanks
- rail tankers

Proven logistics:

- land
- maritime
- intermodal



Customer support and product development

We provide technical and application support for all our plasticizers. We have well-qualified technical staff and the **Laboratory of Research and Innovation Department** equipped in the top quality and technically advanced equipped with the top, in which we conduct:

- Processing tests for:
 - DRY BLENDS processing parameters
 - Moulding parameters
- Laboratory tests:
 - Plasticization time
 - Shore Hardness
 - Strength parameters (tensile strength, elongation at break)
 - Thermal stability
 - Migration
 - Chemical resistance
 - GMC analysis
- Developing optimum processing formulations for industrial applications

We have also launched a semi-scale plasticizer (ester) production plant, on which our experienced technology engineers develop products with specific properties tailored to the individual needs and optimise the production technology.

The semi-scale enables production and synthesis of plasticizers and esters with specific properties in the tank and ion-exchange reactors.

In addition, we can conduct following processes:

- neutralization
- washing
- rectification
- drying with steam and nitrogen under reduced pressure.

We also cooperate with the scientific and research institutions, knowledge and experience of which supports our in-house competences and promotes development.



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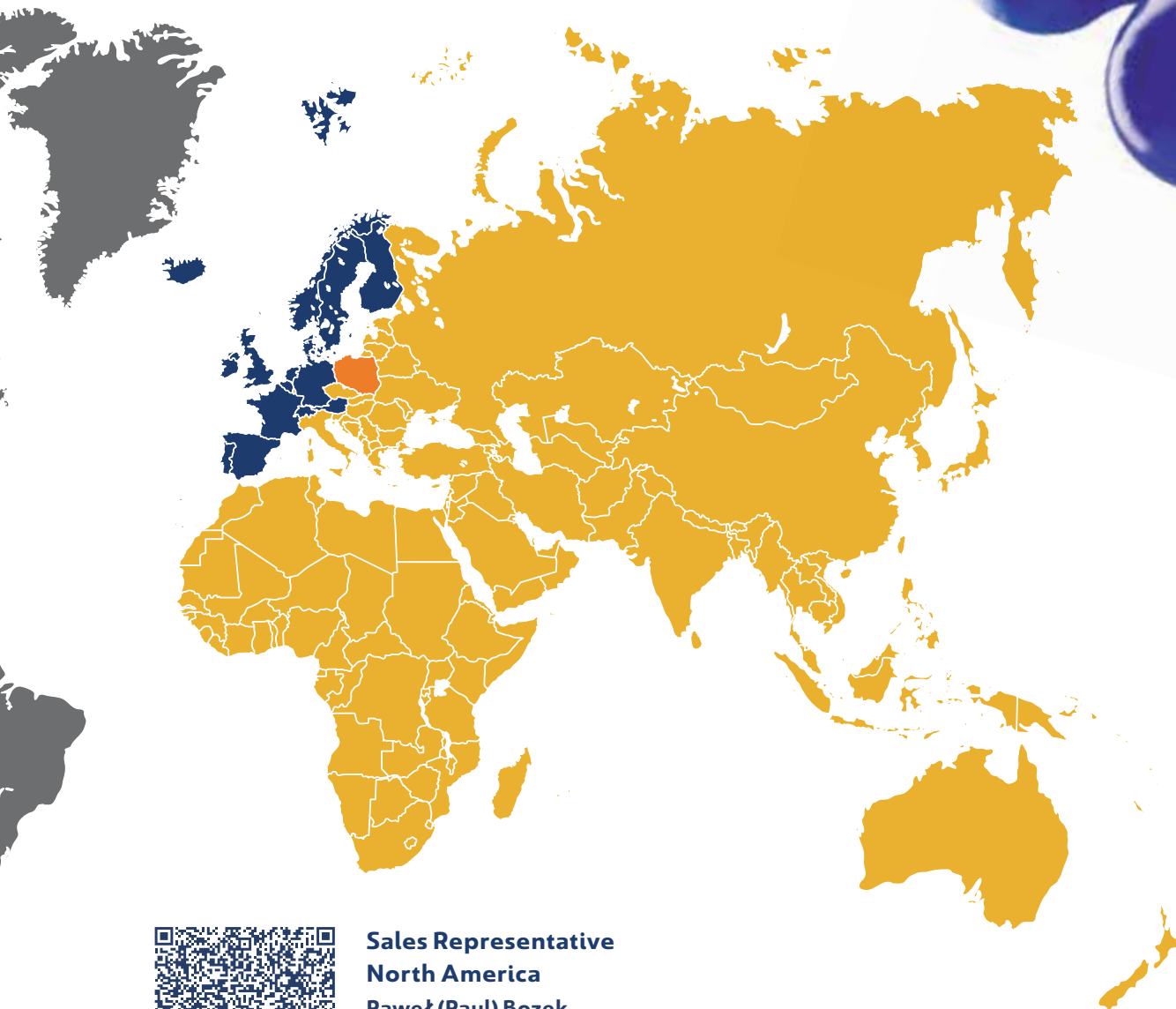
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