

Agenda:

- 1) ACMOS company profile
- 2) ACMOS for composites
- 3) Semipermanent ACMOScoat hybrid systems in the rotorblade production

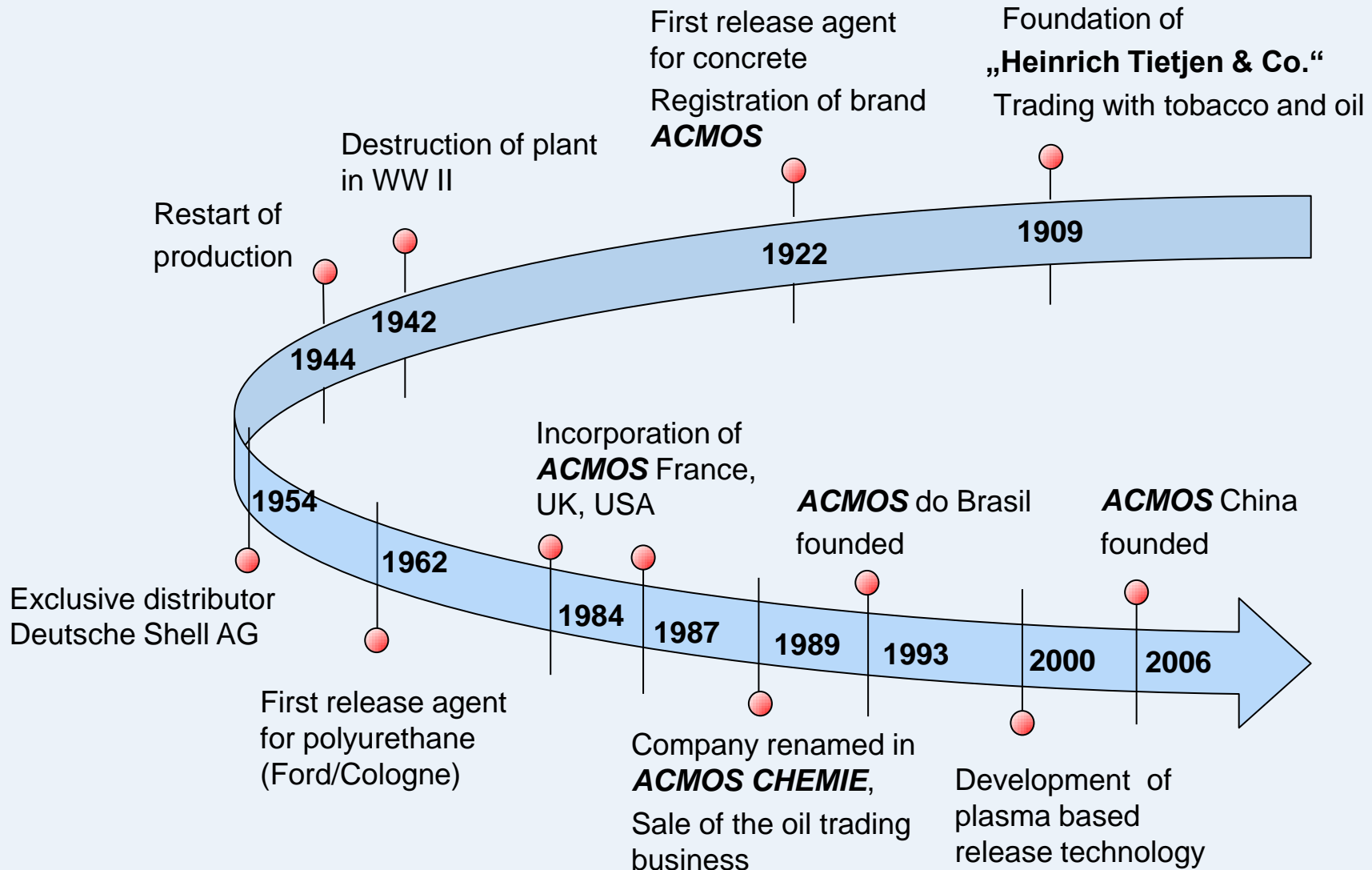


Company Profile

ACMOS CHEMIE KG

2012

History





- Business focus on release agents
- Technological leader in core markets
- State of the art production technology
- QM and QA guarantee optimum performance
- Authorised Economic Operator (AEO)
- Global Network (sales and technical service)
- Owned and managed by the founding family
(4th generation)



Key figures

> 150 employees

> 1,200 products

> 2,000 formulations

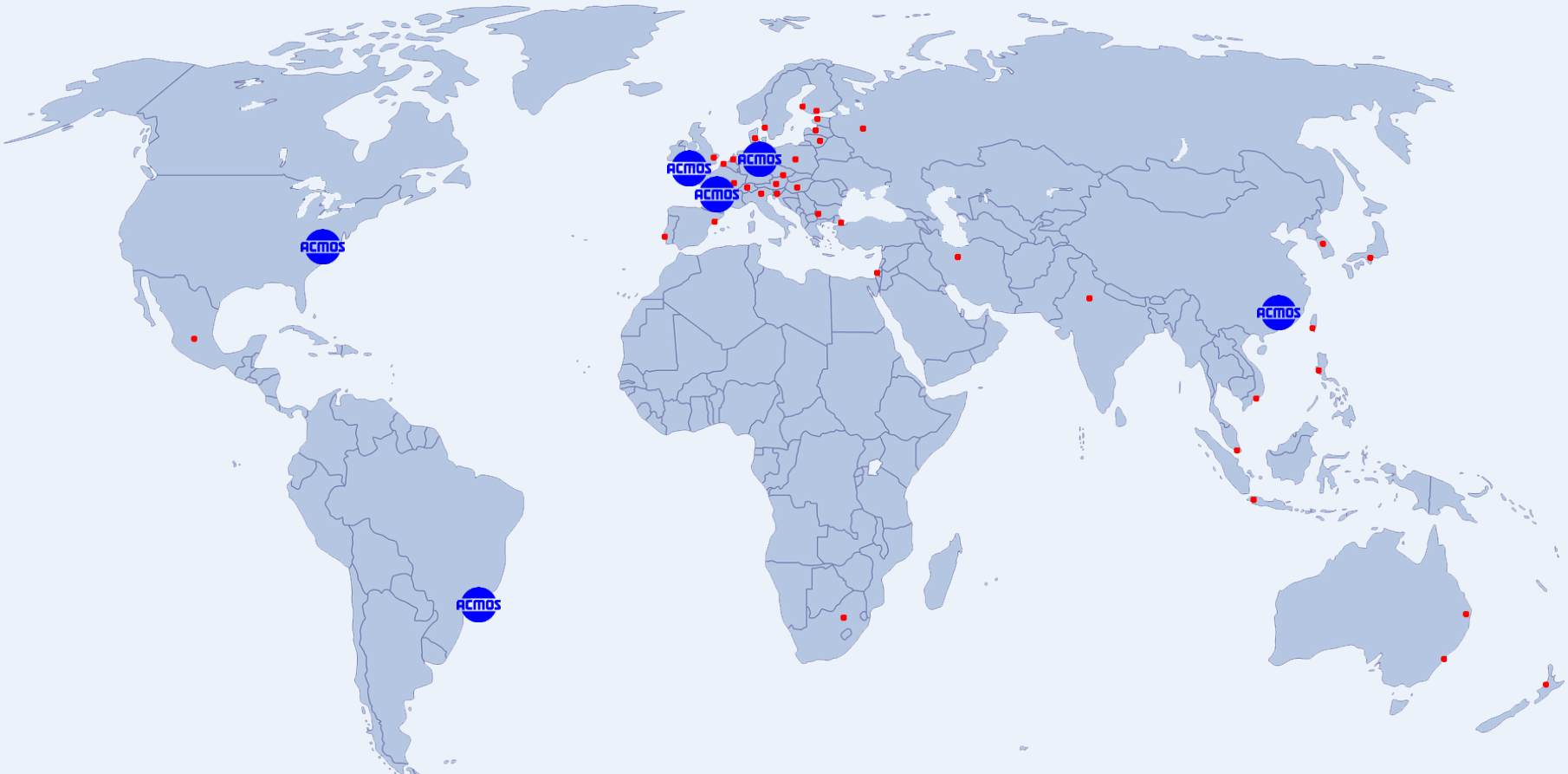
> 60% export rate



> 1,700 customers

> 10,000 t/y production capacity

> 600 raw materials

> 99.5% total satisfaction



-  ACMOS sites
-  Distribution partners

Requirements

Minimising risk of adhesion between product and mould/tool

Quality of moulded part

Solutions

Formulations of surfactants (e.g. waxes, silicones) in water-based or solvent-based carrier medium

Plastics Processing



- Polyurethane
- Polyester resin
- Epoxy resin
- Phenolic
- Thermoplastic
- Rubber

Woodworking Ind.



- pressing
- planing
- sawing
- grinding

Foundry Industry



Sand casting

- Machine moulding
- Hand-moulding

Glass Industry



- Hollow glassware
- Pressed glass
- Flat glass bending

Metalworking



- machining
- grinding
- profiling



- More than 25% of all employees in R & D
- Continuous product improvement
- State of the art analytical and laboratory equipment
- More than 400 new formulations every year
- Intense cooperation with independent research institutes

*ACMOS simplifies the job
in harmony with production and environment*



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ACMOScoat for Composites

➔ *GEAR UP*

Release performance

➔ *SPEED UP*

Manufacturing process

➔ *CLEAR UP*

Production costs



ACMOScoat for Composites

Increased performance generates time



Time = Money



ACMOScoat for Composites

Semipermanent options:

- Solventbased Sealer & Release
- Solventbased Sealer & Waterbased Release

Further Portfolio:

- Internal Release Agents
- External Release Liquids (Water & Solvent)
- External Release Pastes (also with Carnauba)
- PVA-Lacquers & Primer



ACMOScoat for Composites

Covering Manufacturing technology:

- SMC & BMC
- RTM (Hi & Lo)
- Vacuum Infusion
- Manual Lay-Up / Spray-Up
- Filament Winding
- Pultrusion
- Hot Pressing / Pre-Pregging



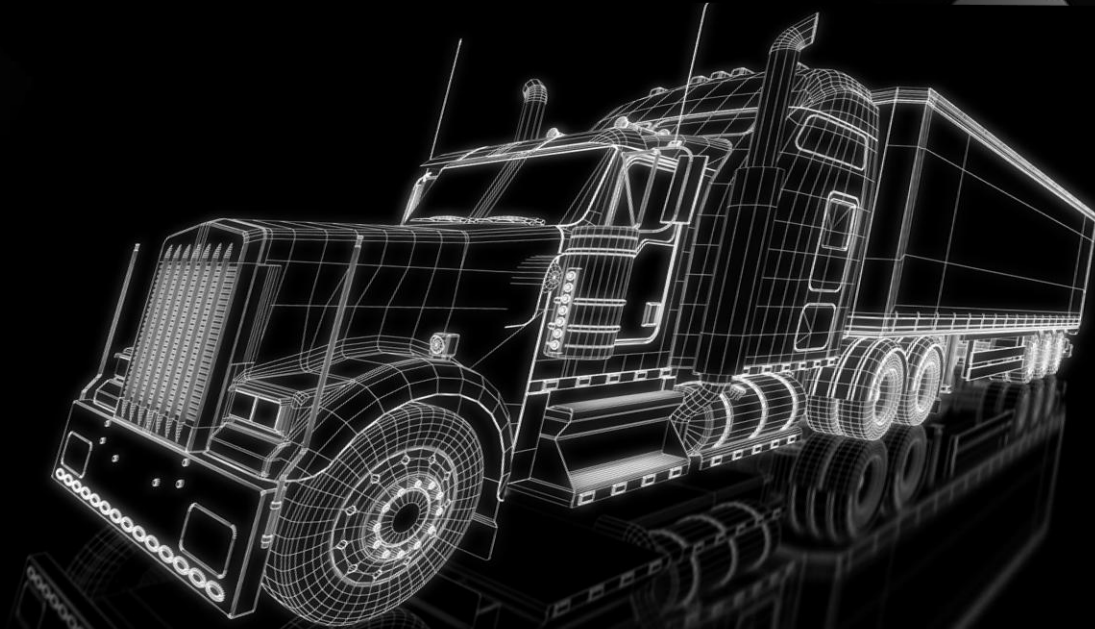
ACMOScoat for Wind Energy



ACMOScoat for Railway



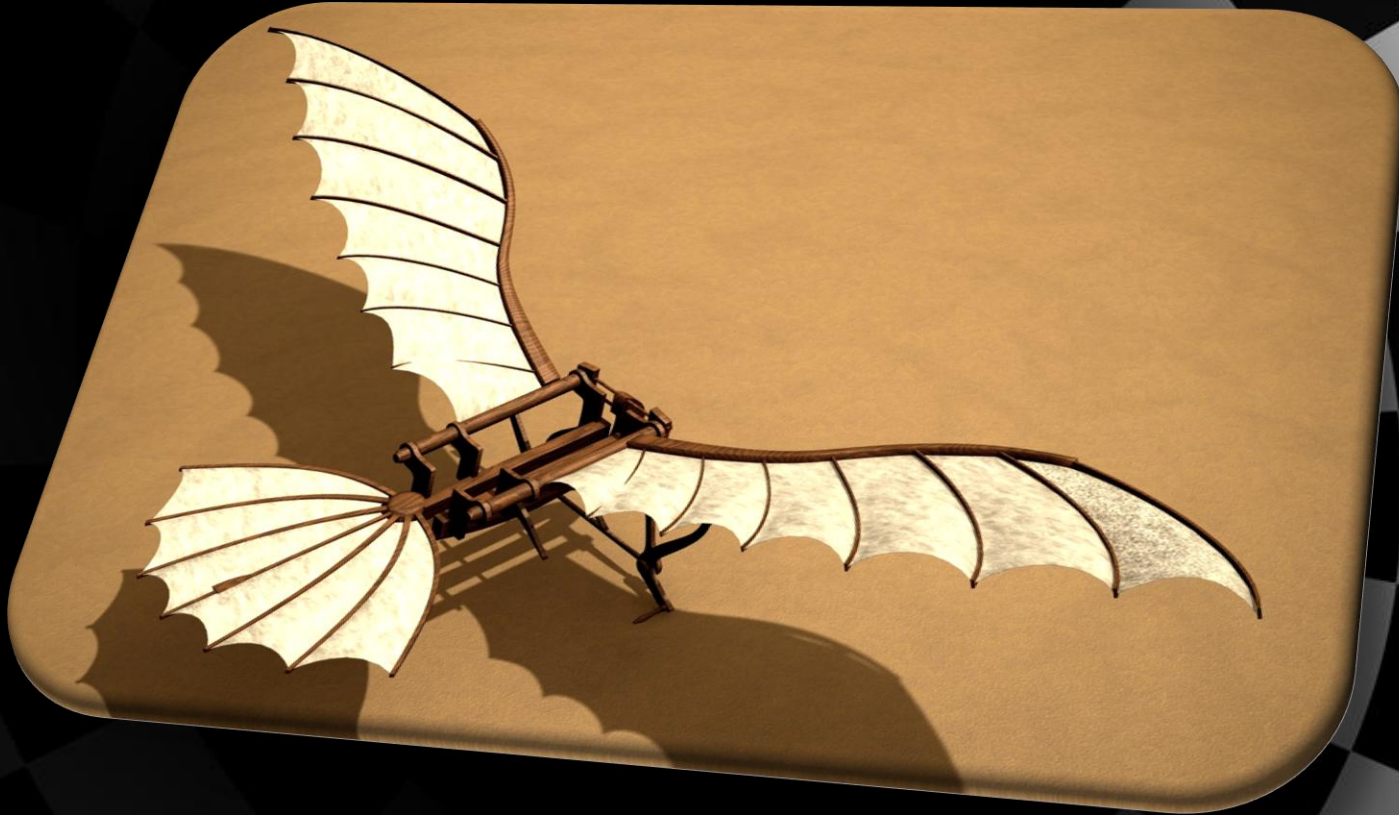
ACMOScoat for Trucks



ACMOScoat for Motorsports



ACMOScoat for Aviation



ACMOScoat for Marine



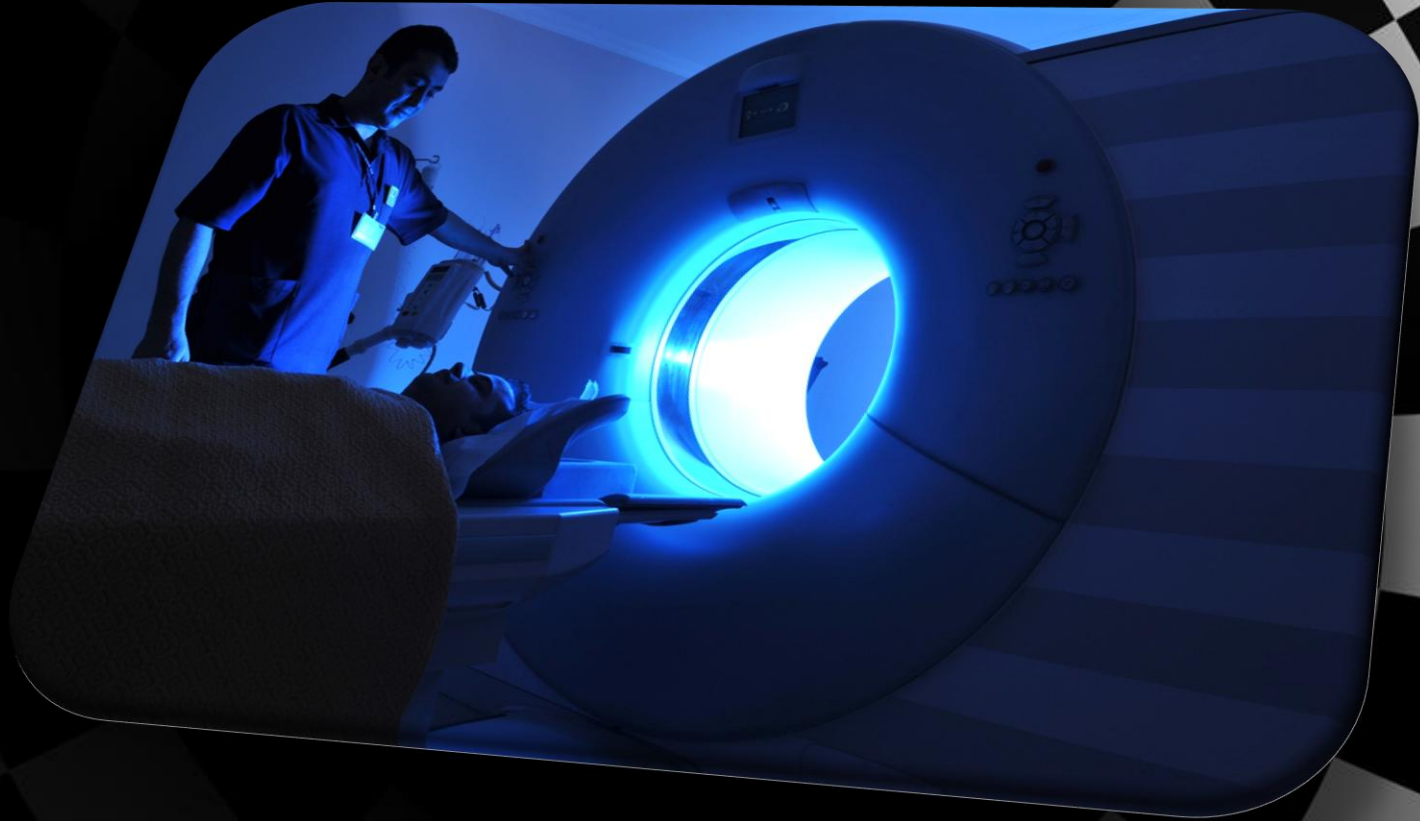
ACMOScoat for Construction



ACMOScoat for Recreational



ACMOScoat for Medical



ACMOScoat for almost emission-free rotorblade making



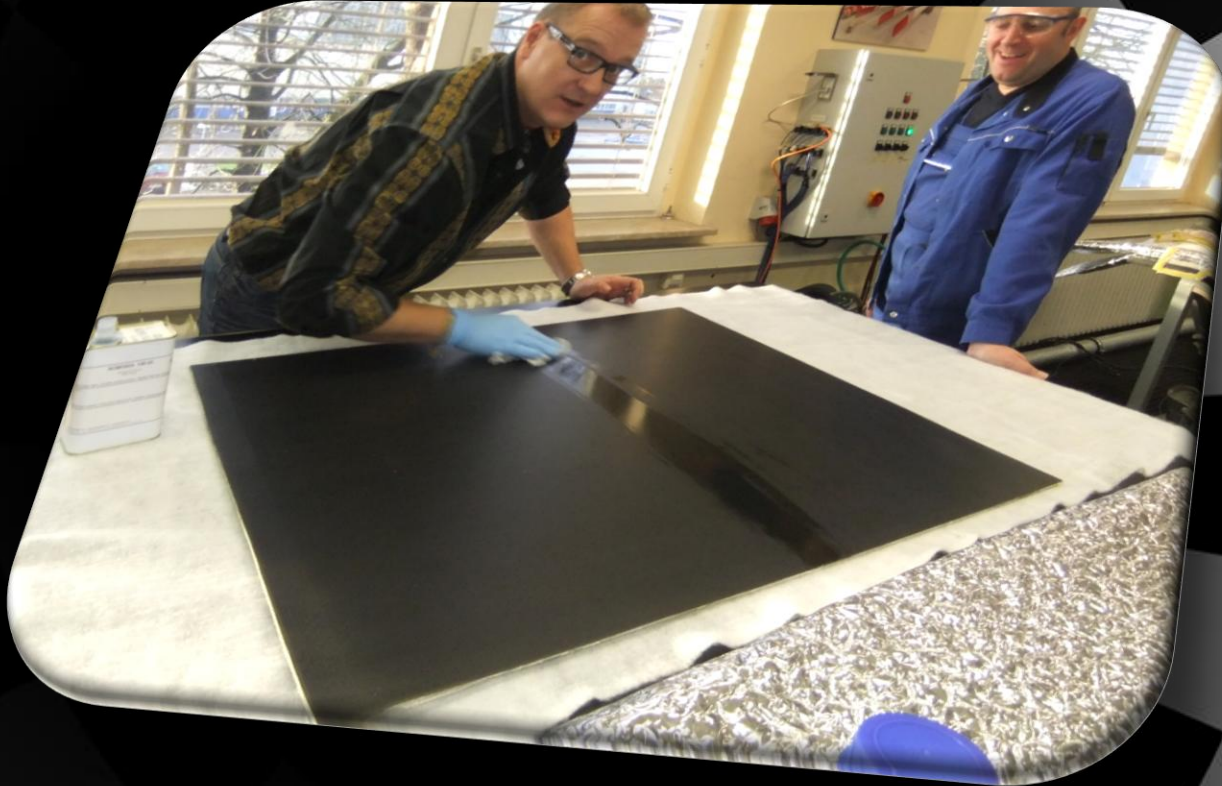
SGL-Rotec's basic requirements:

- Low or no emissions by release system
- Operator and environmental friendly
- One week production without touch-up
- Full mould cleaning after 6 months
- Very good tackytape adherence
- Good wetting of PUR process gelcoats
- Easy removal of residues before painting

ACMOScoat trial at SGL-Rotec I.



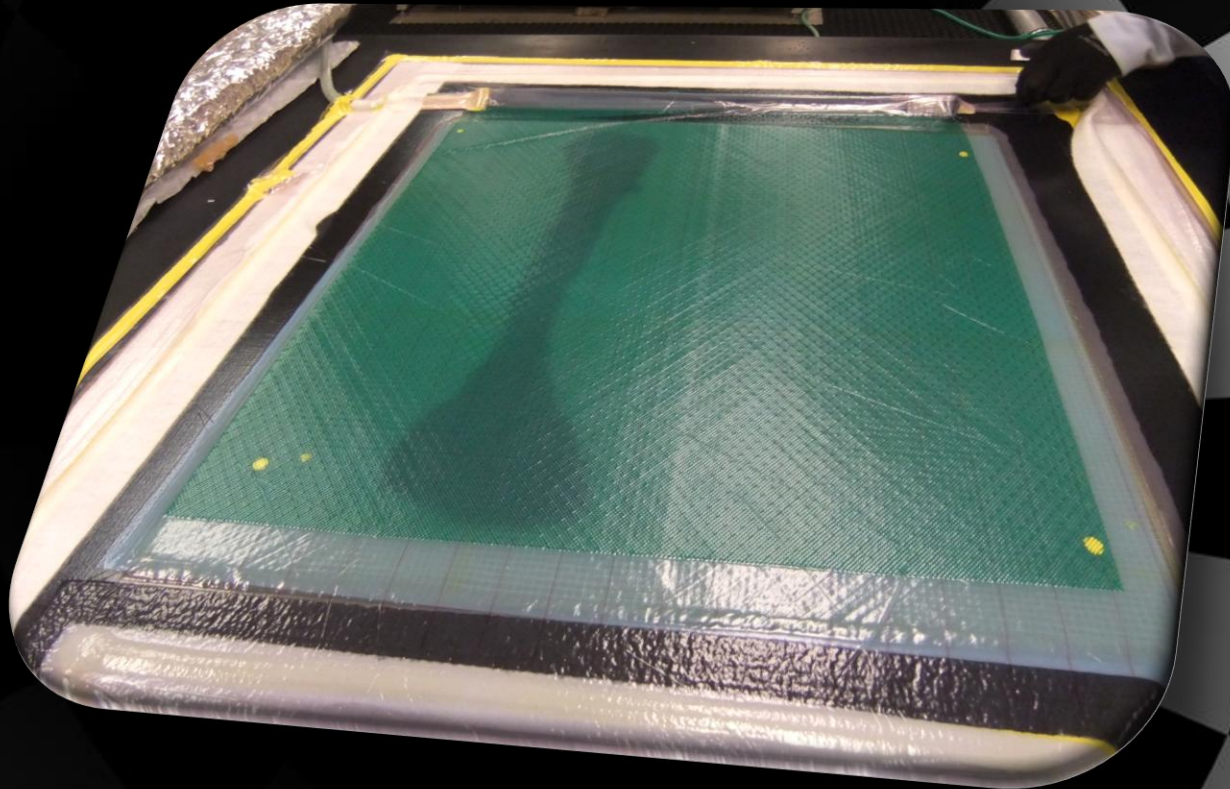
ACMOScoat trial at SGL-Rotec II.



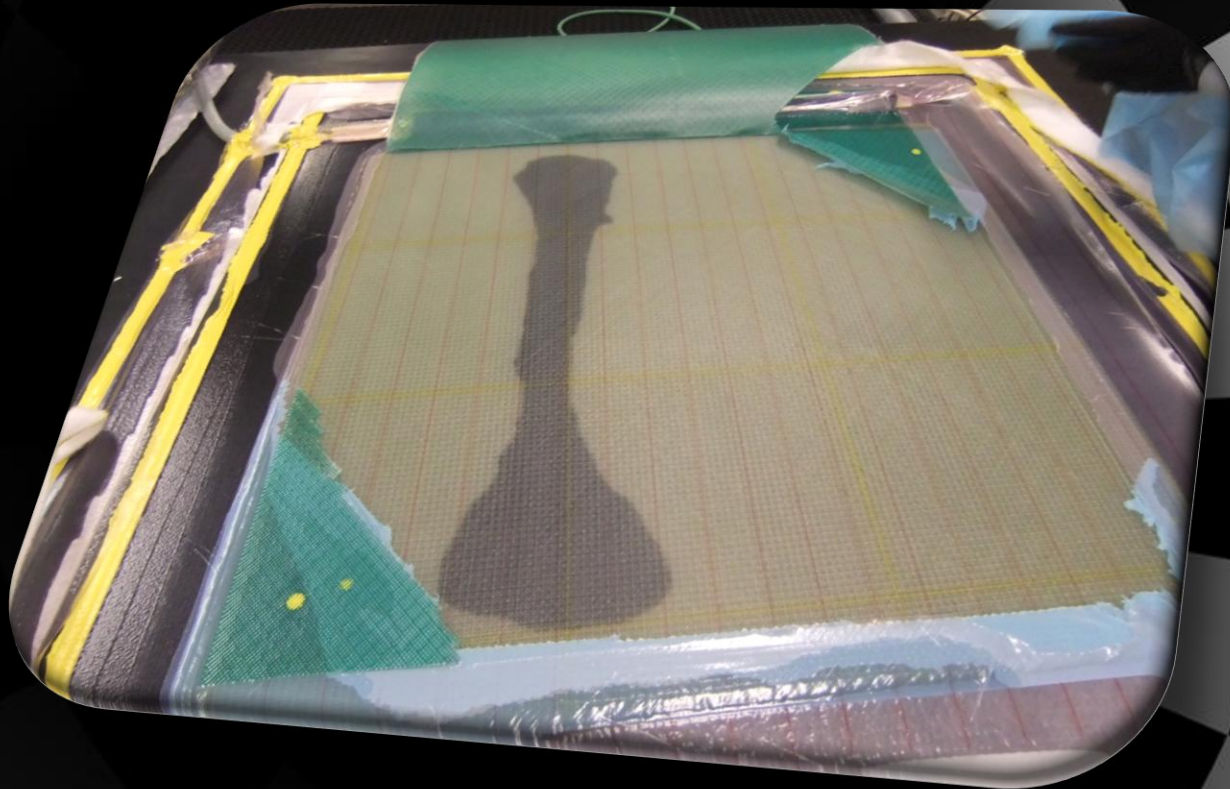
ACMOScoat trial at SGL-Rotec III.



ACMOScoat trial at SGL-Rotec IV.



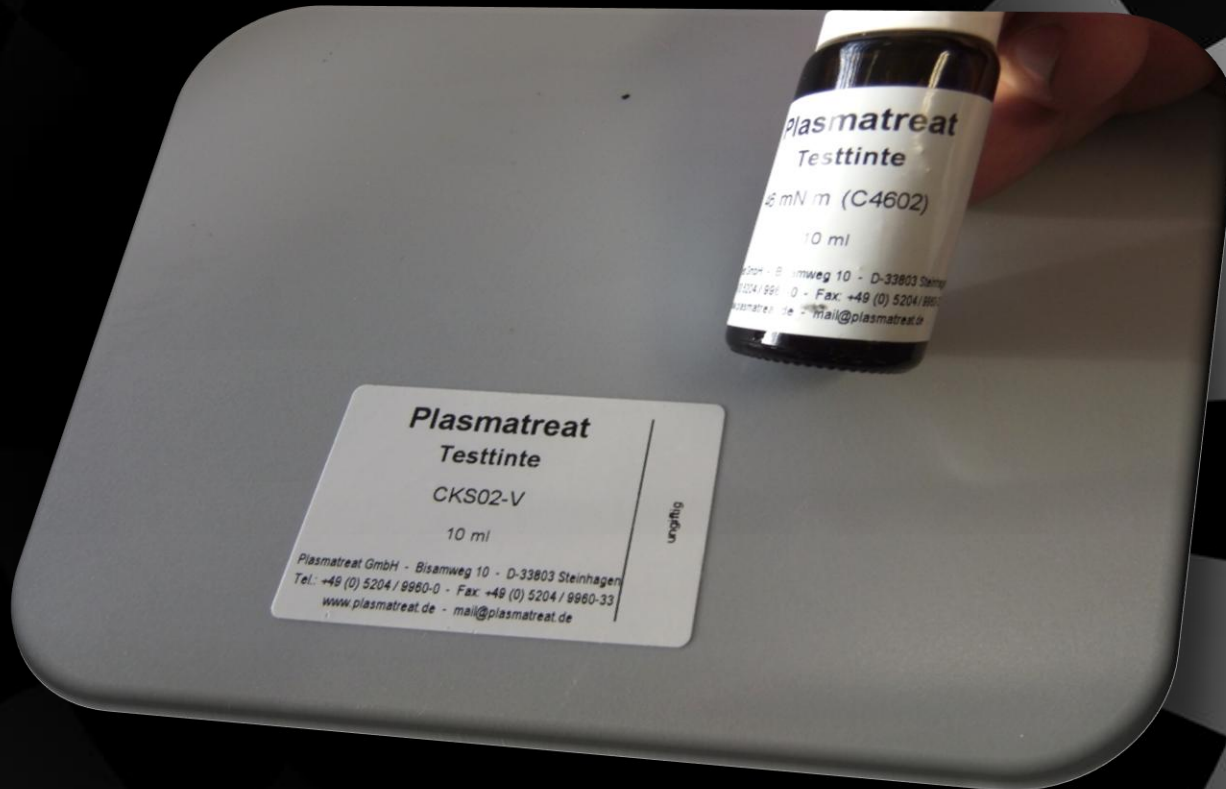
ACMOScoat trial at SGL-Rotec V.



ACMOScoat trial at SGL-Rotec VI.



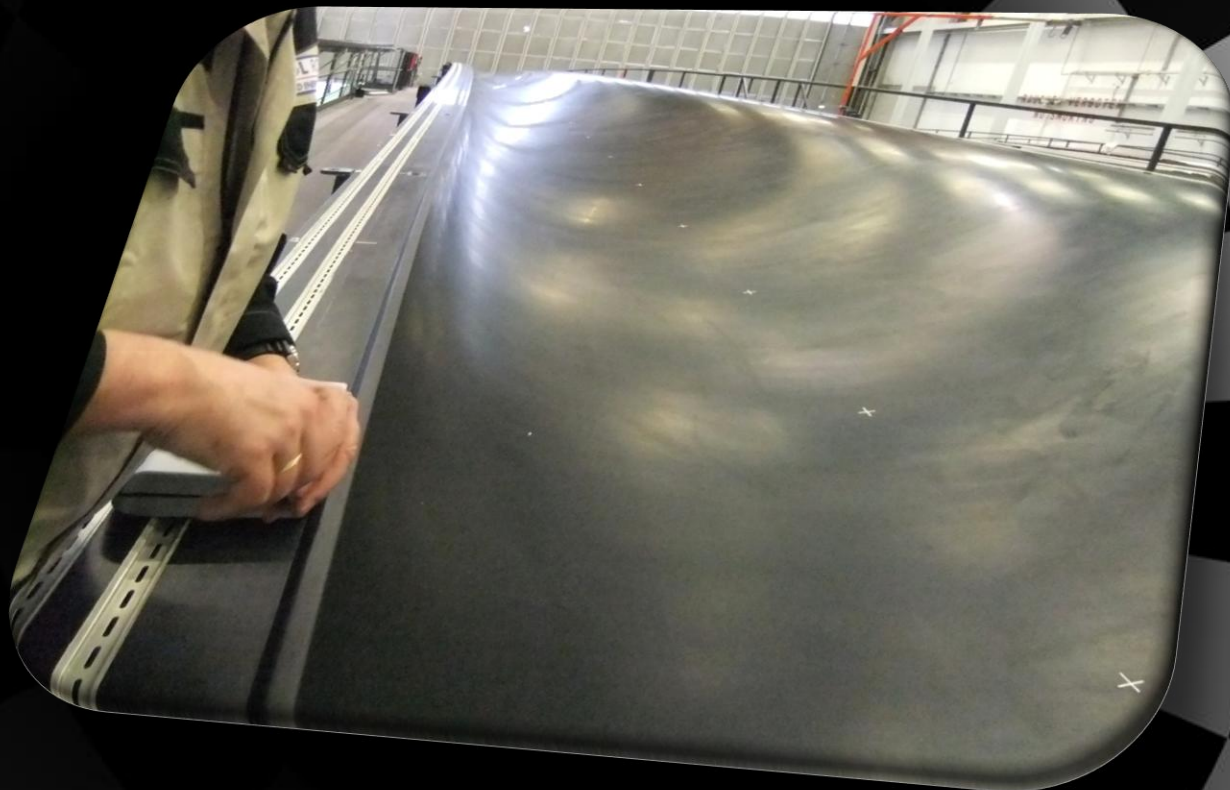
ACMOScoat trial at SGL-Rotec VII.



ACMOScoat trial at SGL-Rotec VIII.



ACMOScoat trial at SGL-Rotec IX.



ACMOScoat achievements

- Low or no emissions by release system ✓
- Operator and environmental friendly ✓
- One week production without touch-up ✓
- Full mould cleaning after 6 months ✓
- Very good tackytape adherence ✓
- Good wetting of PUR process gelcoats ✓
- Easy removal of residues before painting ✓

Conclusions hybrid release system

- Easy application with SprayMob
- Only 0,4 ml VOC (Sealer) per m² rotorblade
- Only 2,0 ml waterbased release per m² r.
- Approx. use of 10 ml per m² and layer
- Rotorblade surface can be cleaned by sanding and / or alkalyne powerwash
- Positive testing with 36 – 40 Dyne test ink

Many thanks for your attention!!!

