alzchem group

Sustainability and corporate social responsibility

TRADITION MEETS SUSTAINABILITY

- Excellent dealing with people and the environment
- Successful reduction of the annual CO_2 emissions by ~ 50,000 tons*
- Spending of ~ 24 M€* annualy in the protection of the environment
- Successful audits of the Trostberg site by the industry initiative "Together for Sustainability"
- Commitment to compliance with responsible care guidelines

* data basis 2022

DYHARD®
High-performance curing systems based on dicyan-diamide (DCD)

OUR PATH TO CLIMATE NEUTRALITY – The Climate Roadmap of Alzchem Group AG

DYHARD®

High-performance curing systems based on dicyandiamide (DCD)

DYHARD® is the brand name for high-performance curing systems for thermosetting epoxy resin systems based on dicyandiamide (DCD) hardeners and urone/imidazole accelerators for adhesives, powder coatings and especially for composite materials for the automotive, aviation and wind turbine industry. A particular sustainable application of DYHARD® is the use in a fluid system for hydrogen cylinders in the Fuel Cell Electric Vehicle (FCEV) technology.

Our production facility for dicyandiamide (DCD) at Schalchen Site (Bavaria, Germany) – the only remaining plant out of China – is continuously in operation since 1950, in other words: Alzchem Group have more than 70 years expertise and know-how in synthesis of DCD. By continuously improving the production process, our DCD facility is one of the most progressive and environmentally friendly plants worldwide and is with an annual production capacity of >20.000 tons one of the biggest globally. In 2016 the aggregated production volume of 1,000,000 to of DCD was surpassed.

PRODUCT QUALITY

- Targeted control of production process surpassed, especially quality of precursor calcium carbide → production of different DCD qualities, with purities up to 99,9% for the use in high-performance curing systems
- In-process control while micronization leading to no or minimal waste/reuse possible
- Verification of product properties are carried out in-house in accredited analytical laboratories

ENERGY & EMISSIONS

- Increasing use of renewable energy sources
- Continued reduction of our product CO_2 footprints through energetic use of CO gas for oil and gas compensation in combination using the formed CO_2 as raw material

PRODUCTION NETWORK & TRANSPORT

- Geographical proximity of our 4 different production sites → short transportation routes for the further processing, mainly by rail
- Use of AI (artificial intelligence) to optimize production processes along our NCN-chain → significantly increasing yields
- Intelligent network integration including energy and material flows, side products e. g. CO_2 used as raw material; cycles can be closed; goal: zero waste
- Online production from DCD to micronization center
- Closing of material cycles → conversion of flue gas scrubber from sulfuric acid to nitric acid, the resulting ammonium nitrate solution can be used in other applications opposite to ammonium sulfate solution
- Further energy savings by replacing the residual non-adjustable air compressor by an adjustable air compressor

RAW MATERIAL & WASTE MANAGEMENT

- 100% raw materials production for DCD in-house
- Regular quality and safety audits at our suppliers
- Wherever possible we handle bulk quantities (raw material, finished goods)
- Only approved and audited packaging is used
- Our packaging waste management comply with the requirements of the EU packaging and waste directive regulating the reuse or recoverable nature of packaging due to their composition

We ACT.

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QUALITY MADE IN GERMANY