



FOR A
BRIGHT
TOMORROW.

EFFECTIVE
FOOD
TREATMENT
WITH ACTIVATED
CARBON

Why

ACTIVATED CARBON?

Flexible solutions with granulated or powdered activated carbons in the food industry.

In the food industry, the use of activated carbon with granulated activated carbons (fixed bed process) from our Epibon series or our powdered Carbopal grades for the treatment of all types of liquid media is very common.

The objective is to achieve high quality standards, for example in the decolourisation of solutions or the adjustment of odour and taste.

The origins of the industrial application of activated carbon can be found in its use in the sugar industry. In 1794, activated carbon was used for the first time in an English sugar refinery. In addition to (pure) decolourisation, activated carbon also has the task of adsorptively removing other dissolved organic impurities as well as odours and flavours.

Nowadays, activated carbon is used for a wide range of applications in the treatment of liquids in the food industry:

- » **Sugar solutions & glucose:** High-purity sugar with low colour
- » **Edible oils and fats:** Safe compliance with the limit values of food regulations
- » **Wine and beer treatment:** Flavour adjustment for maximum enjoyment
- » **E153:** Highest colour strength for food colouring
- » **Lactose & gelatine:** colour reduction with ultra-pure foods
- » **Fruit juice concentrates:** Permanent compliance with food law limits
- » **Preparation of spirits:** flavour adjustment
- » **Soup seasoning, caffeine and glutamate:** colour regulation for bright white products

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How do I fulfil the SPECIFIC REQUIREMENTS?

Increasing quality and environmental standards can be reliably maintained with activated carbon.

Compliance with legal requirements has top priority: Donau Carbon products offer a suitable solution for (almost) every task and challenge.

Edible oil/fats:

In oils and fats for direct human consumption, our Carbopal is successfully used to comply with the following legal requirements:

- » PAH: maximum permissible BaP content 2.0 µg/kg BaP according to Commission Regulation (EC) No. 1881/2006
- » MOH: Recommendations for food: MOSH, chain length C17 - C20: 4 mg per kg of food

- » MCPD: max. 1,25 -2,5 mg/kg Commission Regulation (EU)2020/1322
- » Dioxine/PCB: 1,25-6,5 pg/g Commission Regulation (EC) No 1259/2011

Sensitive areas need to be dust-free:

In some production areas, dust-free is mandatory and is still required to protect employees from safety and health hazards in the work place (§ 1 ArbSchG).

Therefore, in addition to high purity and good adsorption, the dust-free addition of powdered activated carbon is an increasingly important requirement.

We offer our new development of bentonite and powdered activated carbon in formed, water-soluble products, such as our Epibon B 3 H, for this purpose.

This enables rapid dissolution in an aqueous medium to powdered activated carbon for the decolourisation of beverages with simultaneous dust-free addition of activated carbon.



Quality ASSURANCE

The activated carbons for food applications are evaluated and tested in our in-house laboratories according to the following parameters:

- » Molasses factor
- » pH value
- » Moisture content (wt.-%)
- » Granulation (mesh) for Epibon®
- » Particle size distribution (µm) for Carbopal®
- » Purity, e.g. iron content (ppm), calcium content (ppm), etc.

SUSTAINABLE, RENEWABLE

Activated carbon from coconut shells - our focus on bio-based raw materials

Multi-talented coconut

- » Complete utilisation of the main and by-products:
- » Pulp and coconut water for food and cosmetics
- » Fibres and wood for textile and horticultural materials, among other things
- » Coconut shells as a raw material for our activated carbon

Local manufacturing

- » Environmentally friendly manufacturing with short transport routes

Ideal properties

- » Outstanding adsorption performance
- » Superior hardness
- » Lowest ash content

Recycling via reactivation

- » Best suitability for environmentally friendly & cost-saving reactivation

Carbon footprint

- » 5 times lower CO₂ emissions compared to hard coal-based activated carbon

CERTIFICATES

Depending on requirements, Donau Carbon offers a wide range of certificates:

- » Food & Chemical Codex (FCC)
- » Kosher & Halal
- » European Pharmacopoeia (Ph.EUR)
- » GMO & Allergens Regulation (EU) No. 1169/2011 & No. 1829/2003
- » International Oenological Codex
- » Packaging - Declaration of suitability for Food Contact Regulation (EU) No.1935/2004

YOU ALREADY KNEW ... GAK vs. PAC?

Depending on the situation, powdered activated carbon (PAC) or granulated activated carbon (GAC) offers advantages

Powdered activated carbon

- » Low investment costs
- » Temporary use possible
- » No preloading
- » Low space requirement
- » Multiple use

Granulated activated carbon

- » Possibility of environmentally friendly & cost-saving reactivation
- » Equalization of concentration fluctuations
- » Use as a safety/police stage
- » Low analytical effort
- » Easy handling

In Donau Carbon, you have a trustworthy partner at your side who takes care of your activated carbon and filter systems so you can concentrate on your core business. Our experience and commitment to quality guarantee you first-class results.

Advantages for **OUR CUSTOMERS**

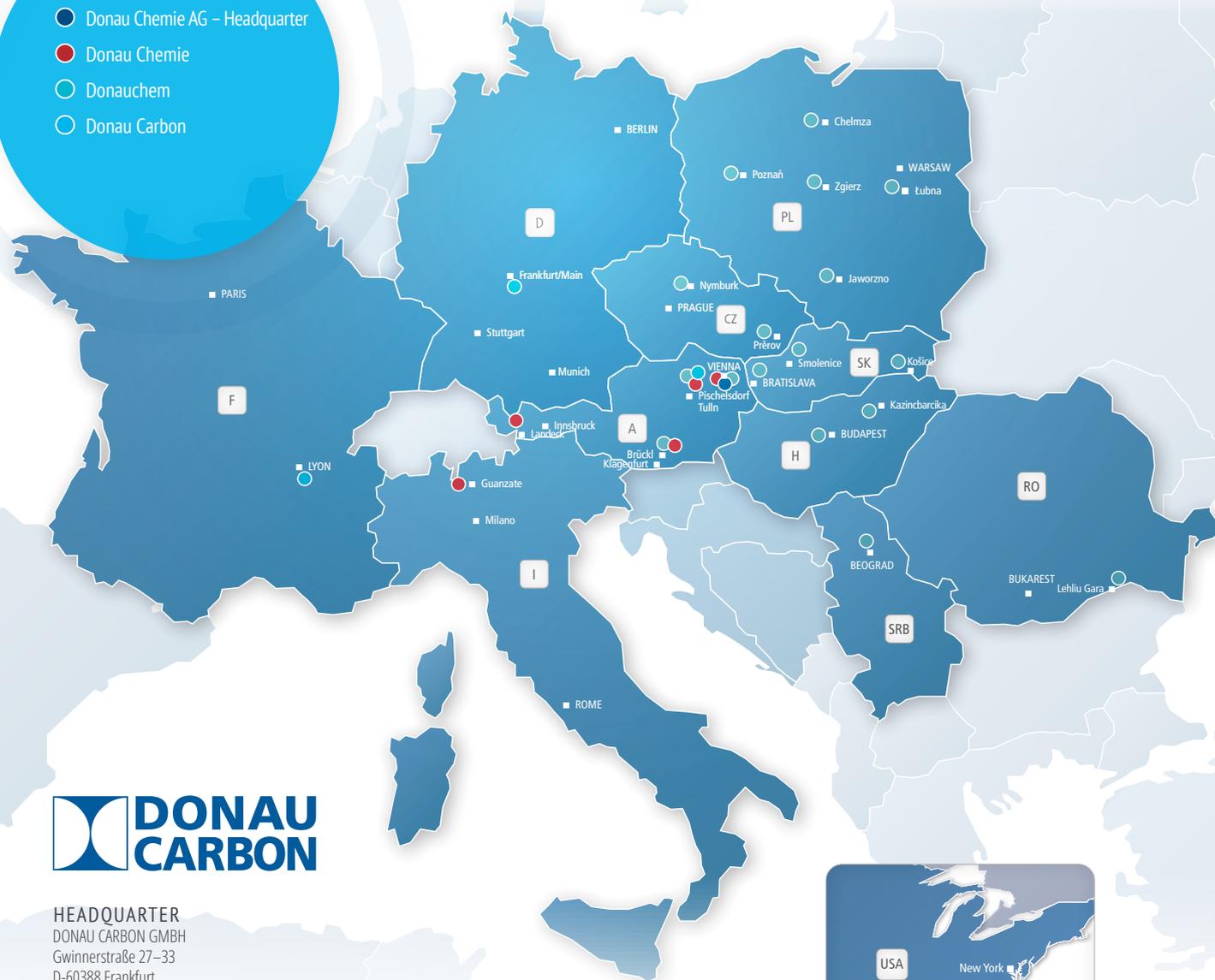
Donau Carbon offers comprehensive technical application support, that goes beyond the sales and commissioning of activated carbon.

- » Product developments and adaptations of activated carbon qualities according to customer requirements
- » Application-related brochures
- » Guidelines for filling/emptying procedures for GAC or the use of PAC
- » Application-related laboratory tests
- » Best product selection for your application
- » Mobile activated carbon filter for on-site tests
- » Recommendations for operating conditions such as e.g. dosage, contact time, service life



We are CLOSE TO YOU

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