Biomethane Gas to Grid (G2G) **FARM BIOGAS** WASTE **WATER FOOD RAW BIOMETHANE PRE-TREATMENT Primary** Carbon Filter Filtracarb® Clean Waste Gas Waste Gas **WASTE GAS DEODORISATION** Carbon Filter 99,99% CH₄ Filtracarb® TYPICAL G2G CO₂ STRIPPING **INSTALLATION FINAL** Biomethane is extracted from various **GAS POLISHING** feed sources and anaerobic digestion Carbon Filter processes including: Filtracarb® Sewage treatment Food waste Farm waste The gas produced must be extensively filtered, deodorised TO GRID and polished to meet rigourous environmental and end user specifications before being input into the national gas grid. Activated carbon is an excellent filter medium and adsorbent for G2G installations; CPL Activated Carbons Filtracarb® range of gas-phase activated carbons has been selected to ensure optimum plant efficiency.

The incorrect selection of carbon can cause numerous problems with a G2G installation: Odour control problems

- Efficiency reducing pressure drops
- Excessive high moisture causing flare-off of gas
- High volume of particulates causing membrane damage.

ACTIVATED CARBONS

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Biomethane

Gas to Grid (G2G)

The Filtracarb® range of products selected for G2G installations is based on activated carbon, manufactured via high temperature steam activation, to create a highly adsorbent, high pore volume filter media.

Filtracarb®	Pre- Treatment	Waste Gas Deodorisation	Final Gas Polishing
EX64/CX64	✓	-	-
EXR4	V	-	✓
EXR4-D	V	-	*
SA70	-	V	-
SA78	-	~	-

Under laboratory conditions the **Filtracarb**® range of activated carbons has been proven to remove greater than 99% of organic contaminants from incoming gas streams. Performance is subject to ensuring that specific design criteria are adhered to while taking into account minimum filter life requirements.

Filtracarb® EX64 is a high strength pelletised activated carbon made via steam activation of specially selected coal charcoal to produce a porous adsorbent with good hardness to ensure optimum performance in vessel adsorbers. **Filtracarb® CX64** is a granular gas-phase carbon interchangable with EX64.

Filtracarb® EXR4 is a regenerated carbon manufactured at our state-of-the-art thermal reactivation plant. EXR4 offers an economic and reduced carbon footprint solution to the market with improved activation levels and low dust.

In cases where a wider adsorption capacity is required e.g. in the presence of high levels of H₂S in the biogas, we recommend **Filtracarb® SA78** (carbonate impregnated) which in addition to all the benefits of **Filtracarb® EX64/CX64**, is treated with chemical additives that increase its ability to adsorb sulfur compounds and is effective at relative humidity levels exceeding 95%.

Our **Filtracarb® SA70** (Cu incorporated) is a multipurpose adsorbent that will remove H_2S and SO_2 with the added benefit of being more resistant to very high moisture levels. **Filtracarb® SA70** will also remove organic contaminants in lower humidity conditions which makes it one of the most versatile products in our range.



Filtracarb® EXR4-D: Our latest addition to the product range, specially designed for the G2G market

- ✓ Very low dust
- ✓ Exceptionally low moisture
- ✓ Shrink wrapped packaging
- ✔ Dried, dedusted and delivered to site
- Reduced flare-off with exceptional cost savings for operator

Regen-Sys[®]

Our comprehensive emission management and activated carbon regeneration service.

Our Regen-Sys® vessel servicing programme offers complete control of your vapour phase adsorption needs.

- Broad range of Clean-Flo® VOCSorber® vessels
- ✓ Hassle-free filter vessel management
- ✓ No capex requirement vessel rental
- ✓ Experienced vessel service team
- ✓ Regeneration of spent carbon
- ✓ Reduce your carbon footprint

Turnkey Project Management:

Let us help you with your G2G activated carbon filters. Our experienced engineers can assist you with:



✓ Build



✓ Installation



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