

# ECOPOL Spółka z ograniczoną odpowiedzialnością Sp.k.

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# G-2 active medium

.... is a natural mineral material with catalytic properties. It is highly effective and free of impurities.

This dust-free black-brown granular material with rough surface is in the form of sharp-edged grains. This material is resistant to abrasion. For the use as a catalytic filter material it is screened out into fractions with narrow range of grain sizes. The G-2 active medium is used in both two-stage and one-stage filtration.

**G-2 active medium** is used in open as well as in pressure filters for filtering water containing excessive amounts of iron and manganese in particular in the organic form.

#### **G-2** active medium ensures:

- highly effective removal of iron and manganese meeting the required water quality,
- excellent sorption properties,
- extension of the useful life of a filter,
- enhancement of filtration efficiency,
- extension of the filtration cycle,
- immediate removal of Fe and Mn.

**G-2 active medium** meets all the hygienic requirements set by PZH (National Institute of Hygiene, Poland) regarding the production of potable and household water. It is neutral to human health when used for the removal of iron and manganese from water.

#### **Product information:**

Colour: black-brownHumidity: <2%</li>

• MnO<sub>2</sub> content: min. 83%

• Density: 4.0 t/m<sup>3</sup>

• Bulk density: approx. 2.0 t/m<sup>3</sup>

Bed expansion: 25%Packaging: PE bags 25kg.

### Standard granulations

Grain size	Media d <sub>10</sub>	Coefficient of uniformity $U = d_{60}/d_{10}$
0.35-0.85 mm	0.38 - 0.41	ok.1.5
0.5-1.2 mm	0.55 - 0.60	ok. 1.4
0.5-2.0 mm	0.65 - 0.8	ok. 1.5
1.0-2.5 mm	1.2 - 1.25	ok. 1.3
1.0-3.0 mm	1.25 - 1.3	ok.1.4

The percentage of undersize and oversize is constantly monitored by the staff of the company and does not exceed 5% of the weight of the product.

## Grain combinations for multilayer filtration

Based on our vast experience, it is recommended to use the following grain combinations:

Filter material	1	2	3	4	5
G-2 active medium	0.35-0.85 mm	0.5-1.2 mm	0.5-2.0 mm	1.0-2.5 mm	1.0-3.0 mm
Filtration sand	0.5-1.0 mm	0.5-1.0 mm 0.8-1.4 mm	0.8-1.4 mm 1.4-2.0 mm	0.8-1.4 mm 1.4-2.0 mm	0.8-1.4 mm 1.4-2.0 mm
Supporting layer	1.4-2.0 mm	1.4-2.0 mm lub 2-4 mm	2.0-4.0 mm 4.0-8.0 mm	4.0-8.0 mm	4.0-8.0 mm

On request we can produce any other granulations.

The depth of filtration bed during one- or two-stage filtration depends on filtration velocity and physical properties of the treated water.

For the process optimization it is recommended to apply the following heights of **G-2 active medium** layers:

one-stage filtration
two-stage filtration
minimum 300 mm
minimum 250 mm

#### **Filtration velocity:**

- up to 12 m/h for one-stage filtration
- up to 20 m/h for two-stage filtration

It must be adjusted depending on the physicochemical characteristics of the raw water, the characteristics of the filter, and economic aspects.

## **Quality control:**

The manufacturing process of **G-2 active medium** is under constant supervision of the engineering staff, which guarantees excellent and controlled quality of the filtering media produced by our company. This was confirmed in 2005 by the ISO 9001:2000 certificate, which has ever since been annually renewed following positive audit decisions by the certification body.



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