

Radifil **RN**

Diatomaceous earths.

FEATURES

Radifil RN are diatomaceous earths with an average permeability between 0.025 and 0.100 darcies. They are essentially made up of fossil siliceous shells of microscopic unicellular algae and are used as filtration adjuvants, due to their porosity and high adsorption capacity.

Due to its high porosity, diatoms extracted from quarries contain between 60 and 70% water. **Radifil RN** diatoms are natural diatoms that are ground, dried and then crushed by selecting precise particle size cuts until they reach their powder form.

Radifil RN **diatoms** are then calcined in furnaces between 800 and 1100 °C. This calcination removes organic matter and agglomerates diatoms, without altering their porosity. After cooling, the product is ground and then selected in order to make precise particle size cuts, responding to the various applications.

APPLICATION

Filtration of beverages such as musts, wines, beers, juices, ciders, oils and fats.

DOSAGE

Application	Dosage
Pre-coat	1 – 1.5 kg/m ²
Dosage	0.25 – 0.5 g/l

The quantities indicated vary depending on the application and must be adjusted under industrial conditions.

HOW TO USE

Preparation of the mixture: either for pre-coating or for alluvionage, a suspension of 2 to 10% of filtering agents in water will be prepared. It will be kept in stirring for about 15 minutes, in order to obtain a homogeneous dough. The pre-layer tank shall have a minimum volume equal to the volume of the filter plus the volume of the circuits plus the volume necessary to keep the agitator blades submerged.

Precoat: the purpose of the precoat is to protect the filter supports (wire mesh, cardboard, spark plugs,...) from premature clogging by impurities, to ensure cleanliness from the beginning of filtration and to promote the unraveling of the filter (detachment of the filter cake). To this end, a layer of approximately 1 – 1.5 kg of Radifil per m² of filter surface will be placed on the filter supports, recirculating through the filter a minimum of 3 times the volume of the tank where the filter supports (filter plates) are housed. Care must be taken so that the

filtering agent is well distributed over the entire filtering surface, for this, a prelayer preparation flow of 1.5 to 2 times the nominal flow rate is usually taken.

Alluvionage: alluvionage consists of incorporating Radifil into the liquid to be filtered. It allows filtration flow rates to be maintained and cycle times to be extended without excessively increasing pressure drop. The amount of alluvionage is between 0.25 and 0.5 g of Radifil per litre filtered

Radifil RN type earths are generally used for alluvionage, although they are also used to make a final pre-layer.

PHYSICAL APPEARANCE

Off-white powder.

PRESENTATION

Radifil RN1: 20 kg bags. Pallets of 780 kg.

Radifil RN6: 18 kg bags. 702 kg pallets.

PHYSICO-CHEMICAL PROPERTIES

	EP 751 (rev.3)	EP 752 (rev.3)
Radifil	RN1	RN6
Permeability [Darcy]	0.05 – 0.1	0.025 – 0.050
Retention at 50 µm [%]	< 12	< 10
Retention at 500 µm [%]	< 1.5	< 1.5
Cake density [g/cm ³]	< 0.4	< 0.4
Ignition loss [%]	< 0.5 (*)	< 0.5 (*)
Humidity [%]	< 0.5	< 0.5
pH 10%	6 (*)	6 (*)
Granulometry [80% of sample][µm]	< 100	< 60
Fe [mg/kg]	< 300	< 300
As [mg/kg]	< 3	< 3

Pb [mg/kg]	< 5	< 5
Hg [mg/kg]	< 1	< 1

* Guideline value.

HOW TO STORE

Radifil diatoms can be stored for a maximum period of 2 years from the time of delivery if they are stored in their original packaging, in a dry environment and free of volatile matter.

RGSEAA: 31.00391/CR

Product in accordance with the International Oenological Codex and Regulation (EU) 2019/934 and subsequent amendments.