

## Radifil RW

### Diatomaceous earth

#### INFORMATION

**Radifil RW** are diatomaceous earths with an average permeability between 0.90 and 17.5 darcys.

Diatoms come from highly porous sedimentary rocks, consisting essentially 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, the diatomite extracted from the quarries contains 60 to 70% water. After milling, it is dried, crushed and then purified into powder form.

**Radifil RW** diatoms are subsequently calcined in ovens at 800 to 1100°C. This calcination removes organic matter and clumps the diatoms, without altering their porosity.

After cooling, the product is reground and then sorted in order to make precise granulometric cuts, according to the different applications.

#### APPLICATION

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

#### DOSAGE

Use	DOSAGE
Precoating	1,5 kg/m <sup>2</sup>
Dosage	0,5-1 g/l

The quantities indicated may vary according to the application and should be adjusted under industrial conditions.

#### DIRECTIONS

**Radifil** diatoms can be used in both precoating and alluvium formation.

**Mix preparation:** Whether intended for precoating or alluviation, a solution of 2 to 10 % of filtering agents in water shall be prepared. Keep stirring for about 15 minutes, to obtain a homogeneous mass. The precoating 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 fully submerged.

**Precoating:** Precoating is intended to protect the filter supports (wire mesh, cardboard, spark plugs, ...) from premature clogging due to impurities, to ensure cleanliness right from the beginning of the filtration and to promote the unraveling of the filter (detachment of the filter cake). For this purpose, a layer of approximately 1.5 kg of Radifil per m<sup>2</sup> of filtering 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.

It is necessary to ensure that the filtration agent is well distributed over the entire filtration surface, for this, a precoat preparation flow rate of 1.5 to 2 times the nominal flow rate is generally selected.

Alluviation: Alluviation consists of incorporating **Radifil** in the liquid to filtrate. It allows to maintain the filtration flow rates and to extend the duration of the cycles without excessively increasing the head loss. The amount of alluvium is in the range of 0.5 to 1 g of **Radifil RW** per liter filtrate.

**Radifil RW** earths are generally used for precoating but can also be used in some cases for alluviation in a roughing filtration or even in a filtration after a clarification, as is the case with RW 12 and/or RW 14.

#### PHYSICAL APPEARANCE

White powder.

#### PRESENTATION

Bags of 25 kg. Pallets of 780 kg.

## PHYSICOCHEMICAL PROPERTIES

Radifil	RW12 EP 757 (rev.2)	RW14 EP 755 (rev.2)	RW20 EP 756 (rev.2)	RW30 EP 787 (rev.2)	RW50 EP 748 (rev.2)	RW60 EP 749 (rev.2)	RW70 EP 750 (rev.2)
Permeability [Darcy]	0.90-1.30	0.90-1.80	2.4-4.0	3.5-5.5	4.9-8.1	7.5-12.5	10.5-17.5
Retention at 80 µm [%]	< 16	< 17	< 25	< 30	< 40	55	70
Retention at 500 µm [%]	< 1.5	< 1.5	-	-	-	-	-
Filter cake density [g/cm <sup>3</sup> ]	< 0.40	< 0.43	< 0.41	< 0.41	< 0.38	< 0.38	< 0.38
Loss on ignition [%]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Humidity [%]	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
pH 10%	10 (*)	10 (*)	10 (*)	10 (*)	10 (*)	10 (*)	10 (*)
Particle size [90% of sample] [µm]	< 220	< 220	< 270	< 300	< 350	< 420	< 450
Fe [mg/kg]	< 300	< 300	< 300	< 300	< 300	< 300	< 300
As [mg/kg]	< 3	< 3	< 3	< 3	< 3	< 3	< 3
Pb [mg/kg]	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Hg [mg/kg]	< 1	< 1	< 1	< 1	< 1	< 1	< 1

(\*) Guideline value

## PRESERVATION

**Radifil** diatoms can be stored for up to 2 years from the time of delivery if kept in their original packaging, in a dry environment free of volatile matter.

**RGSEAA: 31.00391/CR**

*Product in compliance with the International Oenological Codex and Regulation (EU) 2019/934.*