WASTE PROFILE DATASHEET

RapidRinse Soluble Support Material

Discharge of wastewater is subject to varying regulatory requirements. In some countries, discharge from a support cleaning system into the public sewer system may be subject to an authorization/discharge permit. You should check with local authorities whether restrictions apply to the discharge of wastewater generated by the use of the RapidRinse soluble support material and, where necessary, apply for such permit. Values provided below represent an assessment of waste water discharge analyzed after dissolving the support material in a solution at approximately a 2% by weight concentration (i.e. 0.92 kgs of support material in a 46 L water volume). Different dissolution setups with the same concentration should expect similar effluent results, but testing is recommended for confirmation of specific setups.

As shown in the data below, flocculating the dissolved RapidRinse solution can lower the concentration of Total Dissolved Solids, Chemical Oxygen Demand, and Biological Oxygen Demand, if required by local regulations. In order to flocculate the RapidRinse solution, the following steps are recommended:

- Calculate the weight of RapidRinse material dissolved in the solution. Note: MakerBot CloudPrint will show you how much support material is used in each print.
- Mix Espom salt into a separate water solution
  1. The amount of Epsom salt used should be 61.5% the weight of the RapidRinse dissolved in the solution
  2. The minimum amount of water used should be 87% of the weight of Epsom salt
- Mix the Epsom salt solution with the RapidRinse Solution and wait at least 30 minutes for the solids to settle and coagulate
- After the solids have settled, pour through a plastic mesh for coarse filtration and then a coffee filter for fine filtration to collect the solids

Dissolved RapidRinse Solution Analysis[1]

Characteristics	2% Concentration with Water[2] by Weight		2% Concentration with Water[2] by Weight after Flocking Process[3]	
	Value	Units	Value	Units
pH at 25ºC	5.8	Std. Units	5.8	Std. Units
Total Dissolved Solids	19200	mg/L	13000	mg/L
Total Suspended Solids	ND[4]	mg/L	10	mg/L
BOD (Biological Oxygen Demand) - 5 day	5.8	mg/L	4.1	mg/L
COD(Chemical Oxygen Demand)	28100	mg/L	571	mg/L
Total Phosphorus	4.3	mg/L	6.6	mg/L

[1] Results may vary based on individual dissolution setups or processes. Testing of your specific setup and process is recommended to confirm results

[2] Distilled H2O used

[3] Flocculated with epsom salt solution

[4] Report limit of 10.0 mg/L for Total Suspended Solids