

Waste management for a better world

Geocycle (Belgium)



Purpose

This AFR-guide (Alternative Fuels and Secondary Raw Materials) is developed to give a clear and easy overview of the different kinds of waste types Geocycle Belgium and Holcim Belgium is able to accept and treat.

For every kind of waste type, you can find the most important parameters and the different processes these waste streams are released.

The parameters mentioned in this AFR-guide do not replace the parameters mentioned in the official Geocycle Belgium en Holcim Obourg schedule of conditions.

The parameters mentioned in the latest version of the official Geocycle Belgium and Holcim Belgium specifications are binding.

The latest version of these specifications can be obtained from your Geocycle contact.

Target audience

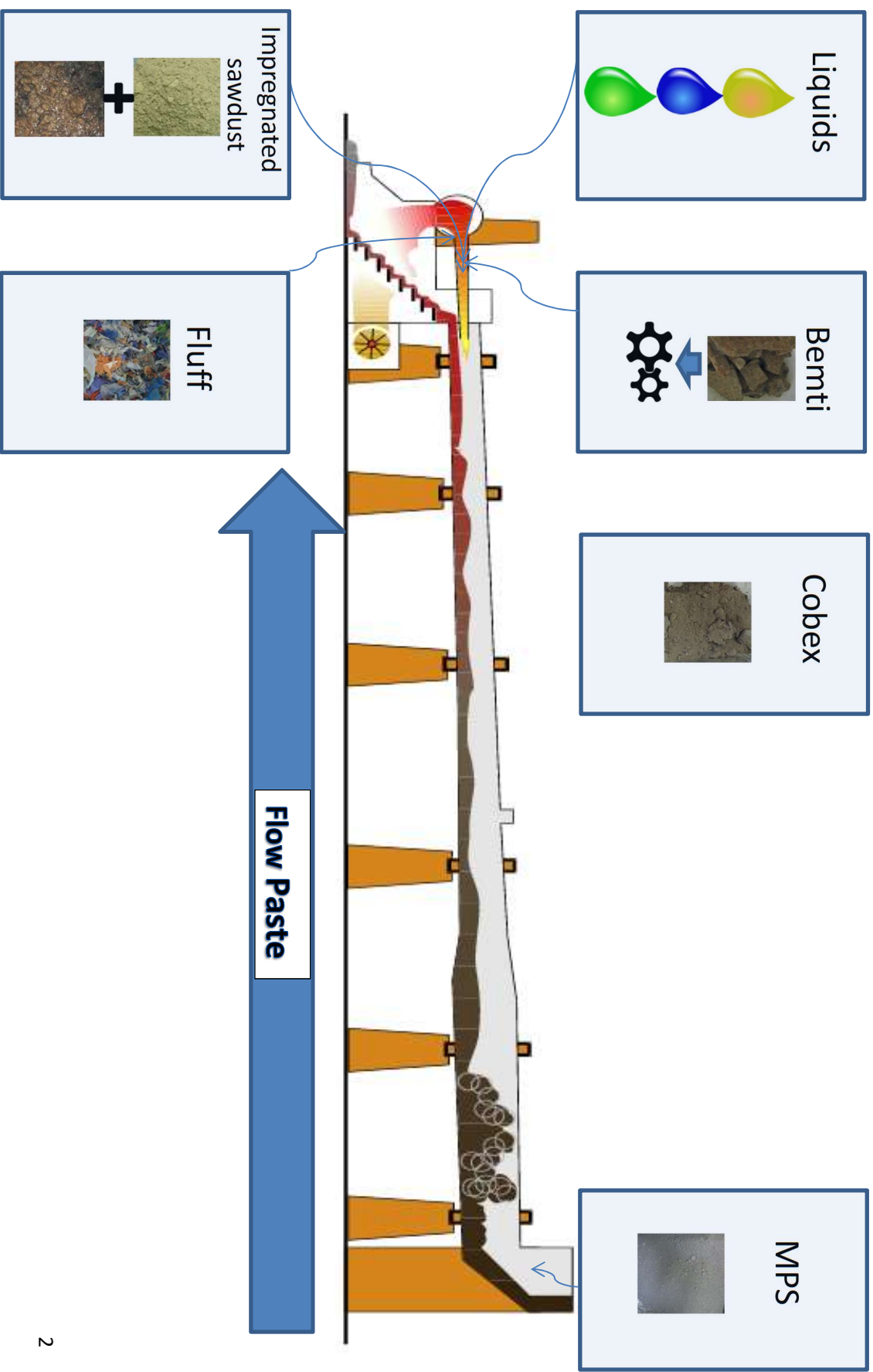
Everybody who comes in contact with waste streams which can be possibly treated within the Geocycle Belgium and Holcim Belgium network. With the focus on (new) outlet managers, production managers, purchase departments, account managers, sales managers,...

Safety

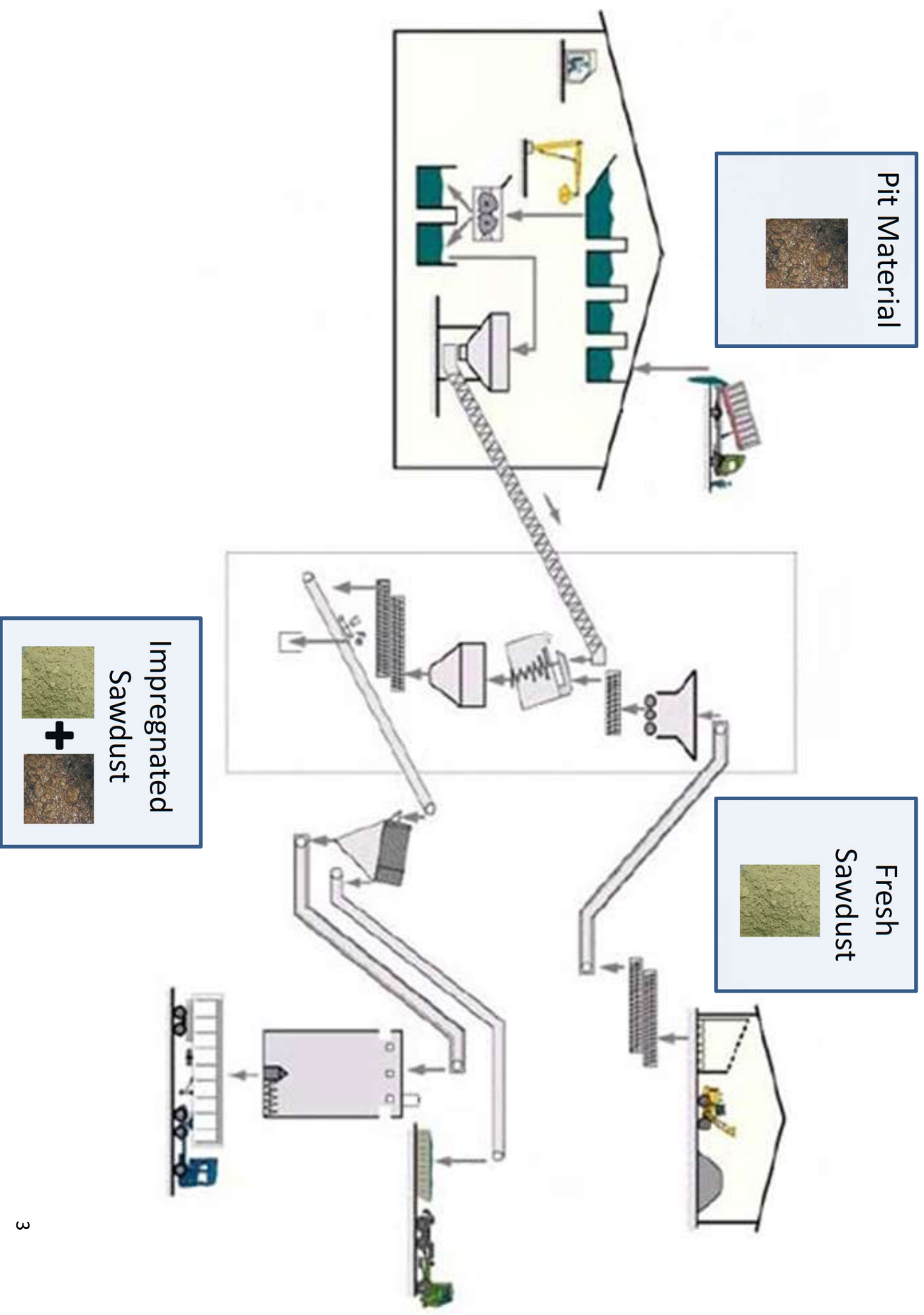
Safety is the number one priority for Geocycle and Holcim. That is why it is essential that everybody who is coming on the platform of Geocycle or at the cement plant of Obourg has a valid certificate of our training "Safety1".

This training should be done in advance via the internet site: www.safety1.be. This one must be then validated by an authorized person.

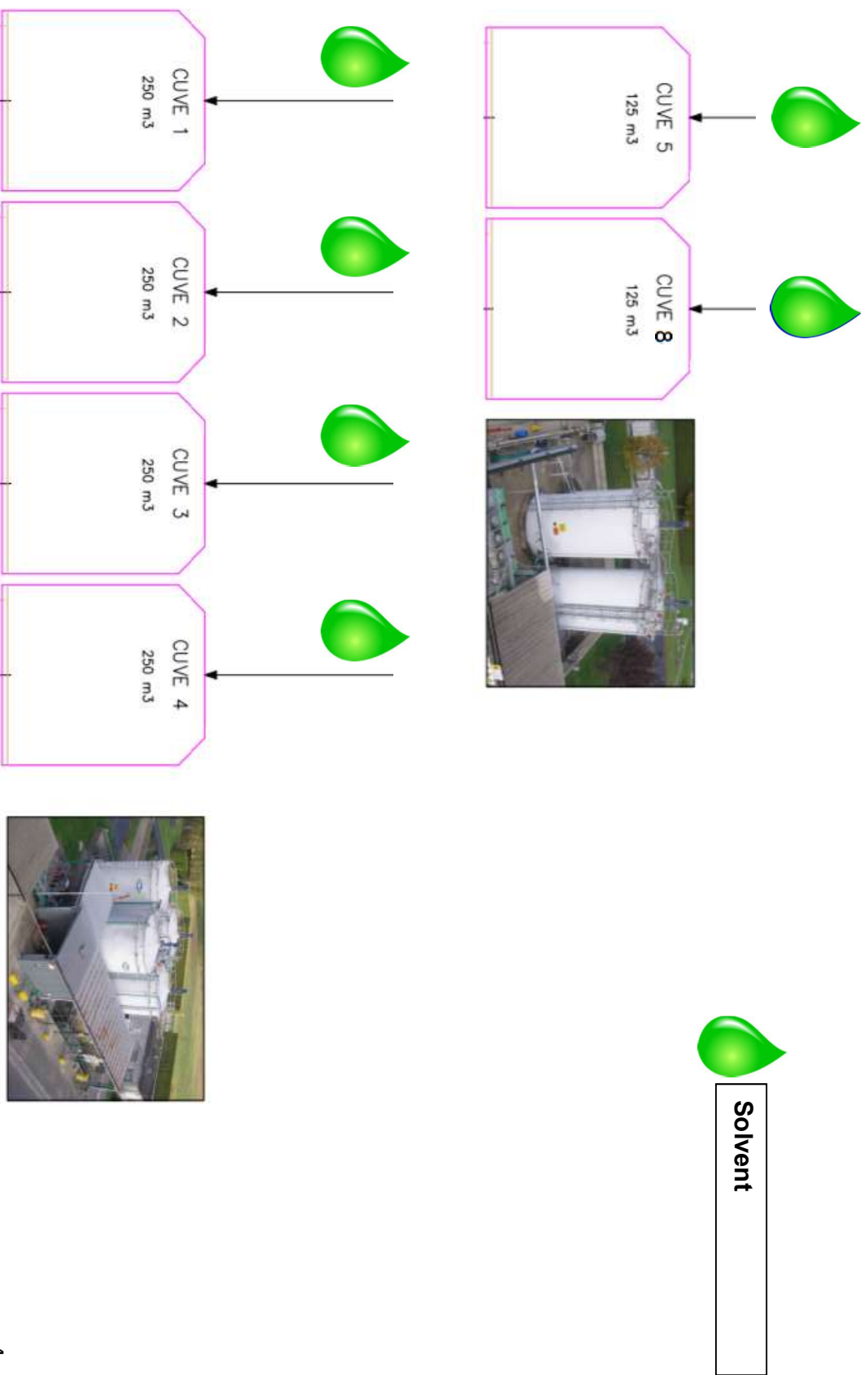
Overview Cementkiln





Overview Seneffe plant- Impregnated Sawdust



Overview Seneffe plant - liquids



 <i>Bemti</i>	Semi-solid non-hazardous and hazardous sludges, from water treatment installations,... (Filter cakes, centrifuge sludge)
 <i>Cobex</i>	Slag from the metallurgical sector, bottom ashes, lime fractions (free of carbonates) which can be dried into powder in the Cobex installation
 <i>Pit material</i>	Thick pasty sludge's: Oily waste or hydrocarbons, paint, ink, varnish or silicon waste. Sludge from material processing, waste which contains solvents,...
 <i>Impregnated sawdust</i>	Wood dust and/or sawdust which is released during the reduction, treatment and sifting of (waste) wood. PU dust which is released during the recycling of refrigerators and the production of insulation materials.
 <i>Secondary Raw materials (MPS)</i>	Sludge's and powders containing Al-, Fe-, Si- and Ca oxides.
 <i>Solvent</i>	Tank bottoms, non-generable waste oil, residue of solvents, paint, liquid distillation products,...
 <i>SRF</i>	SRF coming from the treatment of waste
 <i>Viscous solvent</i>	Residue of solvents, paint and mineral oil with the following origin: Heavy hydrocarbons, cracking residue, residue from viscous distillation,...

 <i>Waste water</i>	Process and cleaning waters
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Benti (Obourg)

Origin:

Semi-solid non-hazardous and hazardous sludges, from water treatment installations,... (Filter cakes, centrifuge sludge)

Properties:

Flash point	>60 °C
Physical Property	Semi-solid Not powdery Must not have a nauseous odor Easily crushable Must not contain objects Absence of tarpaulin
Volatile organic compounds (200°C)	<25 %





Cobex (Obourg)

Origin:

Fe, Al or Ca sources (free of carbonates), such as slag from the metallurgical sector, bottom ashes, lime fractions which can be dried to powder in the Cobex installation.

Properties:

Flash point	>60 °C
Physical Property	Dry (<20%H ₂ O) Not powdery Must not have a nauseous odor Easy to grind/breakable Must not contain objects Absence of tarpaulin
Volatile organic compounds (200°C)	<25 %





Pit material (Seneffe)

Origin: Thick pasty sludge's: Oily waste or hydrocarbons, paint, ink, varnish or silicon waste. Sludge from material processing, waste that contains solvents,...

Properties:

Flash point	≥-10 °C
Odor	Must not have a nauseous odor
pH	4-12
Prohibited	Explosive waste, oxidising substances 1-H270, flammable substances Flam.Gas 1 H220 and Flam.Gas 2 H221, Release of an acute toxic gas
Temperature (Max delivery temperature)	35 °C





Sawdust-absorbent (Seneffe)

Origin:

- Wood dust and/or sawdust which is released during the reduction, treatment and sifting of (waste) wood.
- PU dust which is released during the recycling of refrigerators and the production of insulation materials

Properties:

Flash point	>60 °C
Granulometry	Fraction <90µm <15% Fraction <0,5mm >35% Fraction <4mm >90% Fraction <8mm : 100%





Secondary raw materials MPS (Obourg)

Origin: Sludge's and powders which contain Al-, Fe-, Si- and Ca -oxides

Properties:

Granulometry	Not powdery – no pebbles
Lower caloric value	<3 Mj/kg
Physical state	Semi solid
	May not disturb the viscosity of the paste.





Solvent (Seneffe)

Origin: Tank bottoms, non-generable waste oil, residue of solvents, paint, liquid distillation products,...

Properties:

Acrylonitrile	<5 %
Chlorine total	<0,5 %
Flash point	>-10°C or vapor pressure <55.000 Pa at 35°C
Materials in suspension	<30 % <5 mm
pH	4-14
Temperature (Max delivery temperature)	35 °C
Viscosity	<500 cps
Water content	<40 %





SRF (Obourg)

Origin: SRF coming from the treatment of waste

Properties:

Fine particles (plastic films, sheets of paper, ...)	>100 %
3D	<0 %
Ash (1000°C)	<20 %
Chlorine total	<0,7 %
Apparent density	< 0,65 t/m ³
Granulometry	Max particle size 30mm <3% Min particle size 0,3mm <2%
Lower caloric value	>15 MJ/kg
Water content	<30 %





Viscous solvent (Obourg)

Origin: Residue of solvents, Paint and mineral oil with the following origin:

Heavy hydrocarbons, cracking residue, residue from viscous distillation,...

Properties:

Ash (1000°C)	<10 %
Flash point	>55°C and higher than the T° of the delivery
Ignition temperature	>200 °C
Lower caloric value	>25 MJ/kg
Materials in suspension	<30 %
pH	4-14
Temperature (Max delivery temperature)	90 °C
Viscosity	<400 cps
Water content	<5 %





Waste water (Obourg)

Origin: Process -and cleaning waters

Properties:

Ash (1000°C)	<10 %
Flash point	>60 °C
Materials in suspension	<30 % Absence of foreign bodies > 5 mm
pH	4-14
Temperature (Max delivery temperature)	35 °C
Viscosity	<400 cps



Procedure

Geocycle examines the acceptability of waste streams on received representative samples (for the required quantity, see the table below), by comparing the samples composition with legal and operational limits of Geocycle Seneffe and /or Holcim Obourg.

The sample should be representative, because the hazardous characteristics (CLP classification) of the future delivered waste must be similar to the reference sample characteristics, which was used to establish the Acceptance Certificate.

Sample Packaging

Geocycle recommends the use of HD-PE sample containers, of a suitable design (see below), and its size should be in accordance to the table below.

Glass samples are forbidden.

Solvent	1 liter
Waste water	1 liter
Alternative raw materials (Alu, Fe, Si)	2 kg
Filter cakes for processing in Bemti dryer / grinder	2 kg
Impregnation supports (wooddust and PU)	2 kg
Impregnated wood dust	2 kg
Fluff/SRF	2 kg
Sludges / solid waste for processing in pits	2 kg
Activated carbon	2 kg

For solid waste, it is recommended to use HD-PE containers with a larger opening at the top, as indicated in the pictures below:



For liquid waste, it is recommended to use sample containers which can be tightly closed, in order to avoid spills during transport:



Information to be mentioned on the samples

Prior to sending the sample, please contact your Geocycle contact person, to make sure there is an interest in receiving the sample.

Without approval of your Geocycle contact person, the sample will not be analyzed.

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Geocycle SA
rue de Courrière 49
B-7181 Seneffe
Belgium

Phone: +32.64.51.04.11
Fax: +32.64.51.04.29
www.geocycle.be

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