re:newcell

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Restricted Substance List
November 2017

Version	Date	Changes	Page
1.0	2017-11-09	First issue	
1.1	2018-05-22	Added REACH req	

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Note: This specification of Recyclable Waste is only applicable during the first period of the up-start of re:newcell's textile recycling process. The Recyclable Waste specifications will alter as the recycling process has been tested and developed in Re:Newcell's plant in Kristinehamn. For instance, percentage of cotton content will most likely decrease within the coming period and finishing such as permanent press might become approved.

The Recyclable Waste shall have a cotton content not less than *ninety eight (98)* per cent. The Recyclable Waste shall not have prints on them. The Recyclable Waste shall not have been treated with permanent press finishing or water resistant finishing.

The recyclable waste shall be packed as bales – not exceeding 250kg per bale.

The acceptable colours of Recyclable Waste are:

- White
- Indigo
- Non-coloured

The Recyclable Waste shall not contain any restricted substances under the REACH legislation (https://echa.europa.eu/substances-restricted-under-reach).

The Recyclable Waste shall not contain any substances or materials set out in the GRS Prohibited Substance List (see note 1 below), as updated and amended from time to time.

The GRS Prohibited Substance List has presently the following content but is regularly updated and amended by TE:

Substance Class	**Notes**
Aromatic and/or halogenated solvents	
Asbestos	
Biocides	Biocide used as a preservative is acceptable.
Flame Retardants	
Chlorinated Aroma c Hydrocarbons (including chlorinated benzenes and chlorinated toluenes)	
Chlorinated Phenols	
Complexing agents and surfactants	
Polyaromatic Hydrocarbons (PAHs)	
Carcinogenic, allergenic, and other legally banned colorants	
Dioxins and Furans	Impurities may occur as a result of reactions, but are expected to comply with the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD) concentration limits (www. etad.com/), as listed in the ETAD recommendations

	for threshold limits on organic impurities in dyes.
Formaldehyde and other short-chain alde- hydes	
Glycols: Bis(2-methoxyethyl)-ether 2-ethoxyethanol 2-ethoxyethyl acetate Ethylene glycol dimethyl ether 2-methoxyethanol 2-methoxyethylacetate 2-methoxypropylacetate Triethylene glycol dimethyl ether	
Heavy Metals: Arsenic Cadmium Chromium Lead Mercury To be prohibited beginning January 1, 2016: Cobalt Nickel Copper	Listed metals are banned from intentional use in textile manufacturing/finishing. Additionally, residual traces of antimony, zinc, copper, nickel, tin, barium, cobalt, iron, manganese, selenium and silver in colourants are expected to comply with the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD) concentration limits (h p://www.etad.com/).
Amines: Aminoethylethanolamine (AEEA) 2-Naphthylphenylamine p-Phenylenediamine p-Phenylenediamine-dihydrochloride	
Arylamines	
Halogenated Biphenyls, halogenated Terphe- nyls and halogenated Naphthalenes	
Halogenated Diarylalkanes	
Organotin compounds	
Pesticides	
Phthalates	
Bisphenol A	
Per- and Polyfluorinated compounds (PFC)	
Quaternary Ammonium Compounds: DTDMAC DSDMAC DHTDMAC	
Short-chain chlorinated paraffins (SCCPs, C10- 13)	

Note 1: The Global Recycle Standard (GRS) was originally developed by Control Union Certifications (CU) in 2008 and ownership was passed to Textile Exchange (TE) on January 1, 2011. Textile Exchange (www.textileexchange.org) initiated a revision of the standard in early 2012 with the goal to make the standard more robust and to include new chemical requirements. An International Working Group (IWG) of Certification Bodies was developed to revise the standard. The IWG members are Control Union Certifications, ICEA, IMO, Intertek, and SCS Global Services. A broader stakeholder group including retailers, brands, suppliers, and other industry members reviewed the standard to ensure it is a relevant and useful industry tool. The GRS Prohibited Substance List was developed with the textile industry in mind.