RecyClass

Plastics in Fridges and Temperature Exchange Equipment

CATEGORY	FULL COMPATIBILITY	NOT RECOVERED FROM THE WEEE*	LIMITED COMPATIBILITY	NON COMPATIBILITY
Description	Features in this column are preferred solutions, which will be recovered and recycled at industrial scale. They will not disturb the recycling process, guaranteeing the best recyclability and quality of recycled material.	Features in this category are currently not recovered in industrial-scale recycling plants, as they are not equipped to recover and recycle polymers with densities above 1.09 g/cm³/1.12 g/cm³. Foams and films, which are separated via suction systems, are also included.	Elements in this column are not preferred but can be tolerated in the recycling stream. Their presence might affect the quality of the recycled material or lead to material losses during recycling.	This column classifies detrimental and disqualifying features that should be avoided when designing plastic parts for EEE, as these strongly impact the recycling process and/or the quality of the recyclates.
Internal Components	Food grade approved: ABS PS HIPS		Non food grade ABS, PS, HIPS PE, PP, PP filled with a density below 1.09 g/cm³ SAN, ASA, ABS-ASA, PC-ASA, PC-ABS as they are ending up in the styrenic bath with difficulty of separation during the flotation step (To be tested)	Multilayer structures of different polymers Blends that are not compatible with recycling Thermosets with or without fillers Foamed polymers whose density results in contamination of existing recycling streams Biodegradable Polymers
Exterior Components	Food grade approved: ABS PS HIPS		PE, PP, PP filled with a density below 1.09 g/cm³ SAN, ASA, ABS-ASA, PC-ASA, as they are ending up in the styrenic bath with difficulty of separation during the flotation step (To be tested)	Multilayer structures of different polymers Blends that are not compatible with recycling Thermosets with or without fillers Foamed polymers whose density results in contamination of existing recycling streams Biodegradable Polymers
Functional components	ABS PE PP PP filled with density below 1.09 g/cm³ PS HIPS PC-ABS	If it is not possible to use one of the commonly recycled polymers for technical reasons, use polymers with a density higher than 1.09 g/cm³		Multilayer structures of different polymers Blends that are not compatible with recycling Thermosets with or without fillers Foamed polymers whose density results in contamination of existing recycling streams Biodegradable Polymers
Sealings		Sealings with density higher than 1.13 g/cm³	Non-vuclanised TPE (to be tested)	Vulcanised or crosslinked TPE
Foams		Easy to separate PU foams; XPS; EPS		Vacuum Insulated Panel Non-separable foams
Components removed during depollution phase		Plastic parts contained or attached to these components do not enter the plastic recycling stream. Capacitors; Mercury-containing components Lamps; Tray glass; External cable plastic parts		
Components removed via dismantling				
Additives and fillers	Additives and fillers that will not change the density outside of the desired range for the selected polymer Additives needed for processability that will not hinder recyclability Additives and fillers approved by the RecyClass A & EEE Technical Committee			Biobased fibers Bio-/oxo-/photodegradable additives
Flame Retardants		Components containing flame retardants with a clear density above 1.13 g/cm³ or a marker, making them easy to identify, track and remove		Any flame-retardant typology, leading to compound densities below 1.13 g/cm³; Brominated, chlorinated, fluorinated or phosphate flame-retardants
Coatings				Non removable or not tested coatings
Impact Modifiers	POE up to 10 wt% in PP or PE EPDM (non-crosslinked), up to 10 wt% in PP or PE TPS up to 10 wt% in PP TPS up to 5 wt% in PE Other impact modifiers approved by the RecyClass A & EEE Technical Committee		POE above 10 wt% in PP or PE (to be tested) EPDM (non-crosslinked), above 10 wt% in PP or PE (to be tested) TPS between 5 and 10 wt% in PE TPS above 10 wt% in PP (to be tested) Other impact modifiers approved by the RecyClass A & EEE Technical Committee	Any other impact modifiers (to be tested)
Compatibilizers for Polymer Blends	Compatibilizers for polymer blends approved by the RecyClass A & EEE Technical Committee			
Paints	Paints removable after grinding and washing, at least 90 %		Paint removable after grinding and washing, at least 60 %	Paint removable after grinding and washing below 60 %
Colours	White and natural components		Coloured and dark coloured components	
ISO 1043	Embedded coding on each component			

*WEEE stands for waste electrical and electronic equipment.
Polymer resin can be either fossil or bio-based, virgin or recycled.
Approved technologies can be found here.

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