

VinylPlus

Sector Definitions of Recycling

Revision 6, 1 August 2020



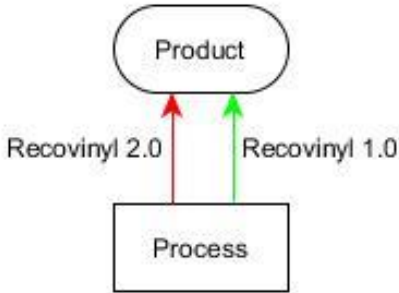
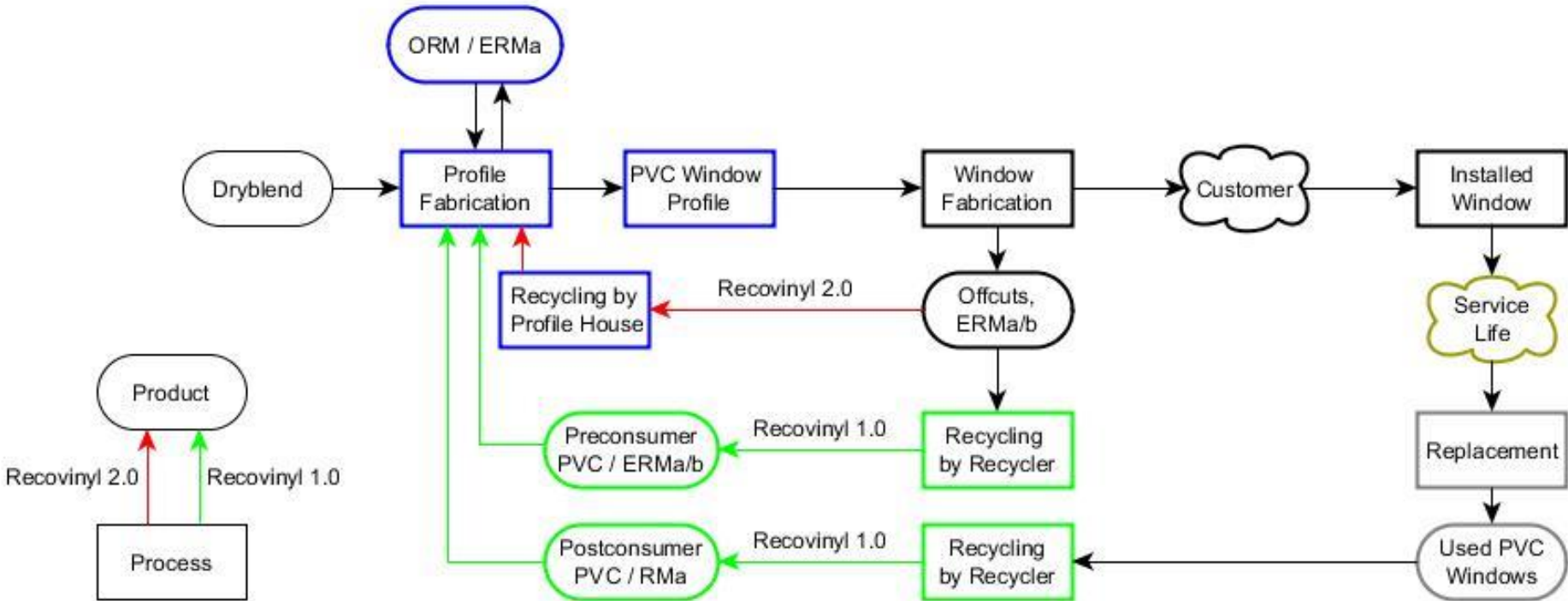
Basic Definition of Recycling

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT; THE PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE.

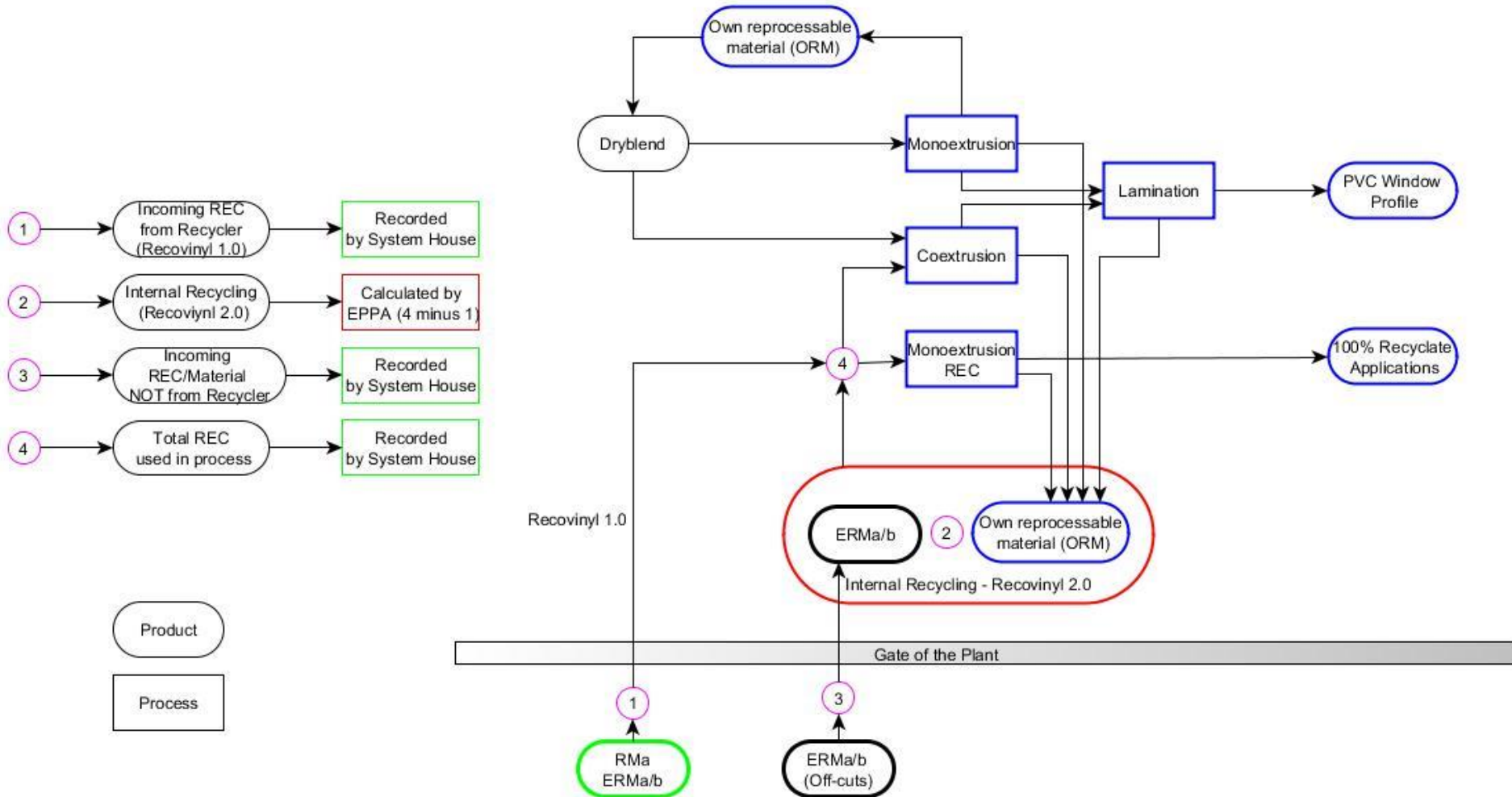
VinylPlus / according to ISO 2.1700 / 2.1701

EPPA Definition of Recycling

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT, PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE



Window Profile Fabrication Process Details



1 October 2019



EPPA | Overview on EPPA recycling streams

TEPPFA Definition of Recycling

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT, PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE

- **Pre-Consumer Waste**
 - ✗ Excluded – Factories (Extrusion/Injection Moulding)
 - ✗ Waste that can be re-used directly in the same process that generated the waste
 - ✗ E.g. injection moulded stubs that are ground back directly into the injection moulding machine
 - ✓ Included – Factories (Extrusion/Injection Moulding)
 - ✓ Production Waste that cannot be re-used directly in the same process that generated the waste:
 - ✓ Start-up material
 - ✓ Quality reject products
 - ✓ Quality test products and storage yard waste
- **Post-Consumer Waste**
 - ✓ PVC pipes from building traders, construction, municipalities, utility, agriculture and telecom companies
 - ✓ Sorting, Cleaning, non-plastics removal, crushing, micronizing, homogenizing
 - ✓ All approved, sold, finished products go to customers + material from
 - ✓ Deconstruction/demolition waste
 - ✓ Sorting companies for building and construction waste
 - ✓ Municipal waste sites

ERFMI

Definition of Recycling 1

Pre – consumer waste excluded

Processing waste that is re-used immediately or continuously in the SAME sub-process* that generated the waste



Pre – consumer waste included

Processing waste that has been substantively adapted/reformulated prior to reprocessing**



Processing waste re-used in other internal processes or sold to other flooring manufacturers or other converters.

Post-Consumer Waste



Post-consumer waste from used flooring after renovation, demolition



Internal re-use of off cuts collected from the site of flooring installation



Waste generated from the above streams which is then provided to a recycler

*sub-process is a constituent process within the overall production process

**e.g. Waste which is re-mixed with other compatible waste or virgin materials before being reintroduced into the same or separate sub-process. Waste which has to be disassembled by separating layers, before being reintroduced into any part of the process.

ERFMI

Definition of Recycling

- Recyclate used in resilient flooring is a mix of reprocessed pre – consumer and post-consumer waste.
- To incorporate pre-consumer waste in their production, flooring manufacturers have invested in product eco-design and internal logistics to ensure each production batch is reformulated to cope with the variability of the recyclate available and the product technical specification target.
- Recycling of pre consumer waste requires high level investments in the technical capacity - e.g specific recycling lines and intermediate storage areas for semi-finished components.
- Important in terms of productivity and industrial performance, as in most cases a recycling facility may source pre-consumer from external suppliers, other facilities from the same producer or from several internal production lines.
- The recycling can be undertaken within the same legal entity or via external companies

Film & Sheet Definition of Recycling

revised KA 1.10.2019

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT, PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE

- **Pre-Consumer Waste**

- ✗ **Excluded** – Factories (Calender and Extruder Manufacturers)

- ✗ Processing waste including:

- ✗ Kneading waste
 - ✗ Clippings and Edge Trimmings
 - ✗ Storage yard waste material including sweepings and chips
 - ✗ Hot grinding

- ✓ **Included** – Factories (Calender and Extruder Manufacturers)

- ✓ Cold grinding, any scrap adapted and reformulated (chemical/process)

- ✓ Roll Waste:

- ✓ Not usable for the same product
 - ✓ Roll waste and Edge Trimmings from
 - ✓ PVC/PE Composites
 - ✓ PVC/PVDC
 - ✓ PVC/Substances Materials

- **Post-Consumer Waste**

- ✓ Post-consumer waste from and to the following industries:

- ✓ Monofilms → PVC films
 - ✓ Laminates → PVC plates
 - ✓ Coated → PVC sheets
 - ✓ Painted → PVC articles metallised & printed

Film & Sheet Definition of Recycling

revised EE 1.10.2019

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT, PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE

- **Pre-Consumer Waste**

- ✗ **Excluded** – Factories (Calender and Extruder Manufacturers)

- ✗ Processing waste including:

- ✗ Kneading waste
 - ✗ Clippings and Edge Trimmings
 - ✗ Storage yard waste material including sweepings and chips
 - ✗ Hot grinding

- ✓ **Included** – Factories (Calender and Extruder Manufacturers)

- ✓ Cold grinding, any scrap adapted and reformulated (chemical/process)

- ✓ Roll Waste:

- ✓ Not usable for the same product
 - ✓ Roll waste and Edge Trimmings from
 - ✓ PVC/PE Composites
 - ✓ PVC/PVDC
 - ✓ PVC/Substances Materials

- **Post-Consumer Waste**

- ✓ Post-consumer waste from and to the following industries:

- ✓ Monofilms → PVC films
 - ✓ Laminates → PVC plates
 - ✓ Coated → PVC sheets
 - ✓ Painted → PVC articles metallised & printed

Roofing and Waterproofing

Definition of Recycling

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- Post-Industrial Waste
 - ✗ Excluded – Factories (Calender and Extruder Manufacturers)
 - ✗ Processing waste including:
 - ✗ Kneading waste
 - ✗ Clippings and Edge Trimmings
 - ✗ Storage yard waste material including sweepings and chips
 - ✓ Included – Factories (Calender and Extruder Manufacturers)
 - ✓ Roll Waste:
 - ✓ Not usable for the same product
 - ✓ Roll waste and Edge Trimmings from
 - ✓ PVC/PET Composites
- Post-Consumer Waste
 - ✓ Post-consumer waste from and to the following industries:
 - ✓ Coated → PVC sheets
 - ✓ All approved, sold, finished products go to customers + material from
 - ✓ Deconstruction/demolition waste
 - ✓ Sorting companies for building and construction waste
 - ✓ Municipal waste sites

Cables

Definition of Recycling

RECYCLED PVC IS A DISCARDED PVC PRODUCT OR SEMI-FINISHED PRODUCT, THAT IS DIVERTED FROM WASTE FOR USE WITHIN A NEW PRODUCT, PROCESSING WASTE IS INCLUDED PROVIDED THAT IT CANNOT BE REUSED IN THE SAME PROCESS THAT GENERATED THE WASTE

- Pre-Consumer Waste
 - ✗ Excluded – Factories (Extrusion)
 - ✗ Waste that can be re-used directly in the same process that generated the waste
 - ✗ Start up waste extruded directly back into the extruder
 - ✗ Storage yard waste material including sweepings and chips
 - ✓ Included – Factories (Extruder Manufacturers)
 - ✓ Cable Waste:
 - ✓ Not usable in the SAME product such as contaminated with metals etc.
- Post-Consumer Waste
 - ✓ Post-consumer cable from the demolition industry or scrap cable from electrical industry which has been stripped of copper etc and re-used in either:
 - ✓ New Cable applications for bedding or
 - ✓ Non-cable applications e.g. traffic management systems etc.