

KIWA Covenant

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STATEMENT

Kiwa Declares that legitimate confidence exists that **procedures** for processing recycled material are implemented by the manufacturer;
for a percentage re used material on a yearly base as stated below;
for the products described in this Covenant.

Wavin Nederland B.V.

Used **procedures** result in a minimum of **40 %** of recycled material.

Products covered by this Covenant may bare the following logo:



Bouke Meekma
Kiwa

Publication of the Covenant is allowed.

Advice: consult www.kiwa.nl in order to ensure that this Covenant is still valid.

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1 OBJECTIVE

This Covenant covers the half yearly check of an approved system to introduce recycled material in a production process. Products resulting from the production process shall meet the agreed requirements.

2 DECLARATION:

The amount of recycled material shall be - on a yearly base - at least 40%.
Only product covered by this covenant shall be identified by the logo on the front page.

3 DEFINITIONS

Recycled material:	The recycled material considered is expected to be the result of mechanical recycling.
PIM	Post-Industrial- Material
Post-Industrial- Material:	Material diverted from the waste stream during a manufacturing process. This is sometimes called pre-consumer material. In this case re-used external material and rework material
PCM	Post-Consumer-Material
Post-Consumer Material :	Material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain. In this case PVC-U pipes and fittings and other PVC-U products (e.g. PVC-U window profiles)
Rework material:	Rework is reutilizing material that is generated in a process and capable of being reclaimed within the same process that generated it.
Mass balance:	The difference in weight between incoming and outgoing materials in a production process.
Additives	materials added to the PVC-U resin that are needed to facilitate the manufacture of pipes, fittings according to EN 13476 – 2 and/or EN 1453
%Rc	Mass percentage of recycled material used in products in a one year period.
PVC _{virgin}	Material in the form of granules or powder that has not been subjected to use or processing other than that required for its manufacture and to which no reprocessible or recyclable material(s) have been added.

4 MASS BALANCE

A mass balance evaluation for the amount of recycled materials implies a mass balance by accounting for material entering and leaving the system. Material entering and leaving the system at different stages of the process must be in balance, considering mass conservation. Mass cannot be created or disappear spontaneously.

To ascertain a correct mass balance an overview of the different steps of the process has to be analysed where the entering or leaving points for material or part of the material are indicated.

This requires a high level of traceability and transparency in the manufacturer's documentation.

The amount of material entering or leaving the system must be noted in units of weight such as kilograms or tons.

A mass balance shall cover a continuous period of 12 months prior to the first issuing date of the agreement.

Corrections to the mass balance shall be included in cases where material leaves the process by i.e. evaporation. For example: when an additive is water based and the process includes a heat step, we could expect the water to evaporate.

The mass balance shall indicate post-industrial and post-consumer recycled materials separately.

5 CALCULATION OF THE AMOUNT OF RECYCLED MATERIALS

5.1 The recycling percentage is calculated as the quotient of the weight amount of recycled material used and the weight of the net end product. This definition follows ISO 14021:1999.

5.2 The quantity recycled material expressed in % of the total weight used material:

$$\%R_c = \frac{\text{PIM+PCM}}{\text{PIM + PCM + PVCvirgin+ additives}} \times 100$$

6 REQUIREMENTS IN THE PROCEDURE FOR THE END PRODUCTS

6.1 For pipes according to EN 13476-2, diameter range 110 – 630 mm, the production process results in the following:

- per diameter per monthly period recycled material: at least e 40 %.
- per pipe product recycled material, at least 36%.

6.2 For pipes according to EN 1453, diameter range 32 – 90 mm, the production process results in the following:

- per diameter per monthly period recycled material: at least 30 %.
- per pipe product recycled material, at least 27%.

6.3 For the total number of products the production process results in a recycled material percentage of at least 40% on a yearly base.

7 TOTAL QUALITY CONTROL

During the inspection visits the Kiwa inspector checks the internal document retention and record keeping system that the organization maintains, either in paper, electronic or other format, to support its quality systems.

Inspections must in any case cover the following:

- The IQCS (Internal Quality Control Schedule) of the supplier and the results of the quality controls;
- The required marking of the certified products;
- Are the required procedures followed?

8 FREQUENCY OF EXTERNAL INSPECTIONS

Kiwa shall execute inspections at the supplier to check the fulfilling of all obligations.

The Kiwa Committee Covenant decides about the inspection frequency.

For this Covenant the inspection frequency is fixed on 2 inspections per year.

All data of the inspection must be traceable detailed in a report.

9 CHAIN OF CUSTODY REQUIREMENTS

9.1 Traceability: A chronological record, set of records, or destination and source of records that provide documentary evidence of the sequence of activities that have affected at any time a specific operation, procedure or event. Also traceability refers to the completeness of the information and documentation about every step in a supply system.

Recycle materials must be known for their origin and be checked for the validity of this origin. This can be done by statements, certificates, Covenants or self-investigation at the recycler. In case a system is available at the recycler, the validity of the certificate should be checked.

The recycled material must be differentiated between post-industrial recycled material (PIM) and post-consumer recycled material (PCM).

9.2 Transparency: Transparency implies openness, communication and accountability, in such a way that it facilitates easy access to the necessary information concerning this Covenant.

9.3 Manufacturing process description: The manufacturer shall provide a detailed description of the manufacturing process and details also every input and output related to that process in great detail. Preferentially accompanied with a drawing or diagram.

9.4 Sub-supplier verification and validation: The supplier shall provide a signed form and or records from all suppliers. These might include invoices, bills of loading, or delivery receipts.

10 BIBLIOGRAPHY

NEN-EN-ISO 14021: 1999 and NEN-EN-ISO 14021/A1: 2012

Environmental labels and declarations —Self-declared environmental claims (Type II environmental labelling)

EN 13476 – 2 Structured-wall piping systems of PVC-U, PP and PE pipes and fittings – Type A.

EN 1453 – Structured-wall PVC-U pipes and fittings for soil and waste.