



Kiwa Covenant K91668-02



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Wootex

STATEMENT BY KIWA

With this Covenant, issued in accordance with the Kiwa Regulations for Product Certification, Kiwa declares that legitimate confidence exists that the products supplied by

VIVE Innovation sp. z o.o.

as specified in this product certificate and marked with the Kiwa®-mark in the manner as indicated in this product certificate may, on delivery, be relied upon to comply with Kiwa Castor Gaea Manual K15012 dated January 2016.

Ronald Karel
Kiwa

Publication of the certificate is allowed.

Advice: consult www.kiwa.com in order to ensure that this certificate is still valid.

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COVENANT

Wootex

Preface

This Covenant has been prepared by the "Sustainability" Technical Committee of Kiwa Nederland B.V. and approved by the Kiwa KCC. The KCC evaluation team assesses the certification activities and requires a re-evaluation if necessary.

Introduction

This covenant concerns the process of reclaiming textile waste and the plastic waste by reprocessing them together and upscale into a new textile-plastic composite material in form of granules (Wootex), supplying the market with a sustainable product.

The textile sorting and granulating facility are owned and operated by Vive Textile recycling in Poland. The company is ISO 9001 and 14001 certified and also its suppliers are ISO 14001 certified. In the audit carried out by Kiwa the transparency of the operation and the traceability were 100%.

Production process description

VIVE is a company which collects used textiles to be sorted and re-used or recycled as textile products. Part of these materials cannot be re-used or recycled as textile. This fraction is combined with PE that originates from the packaging of these textiles and if necessary from an additional external recycled source to produce Wootex composite granules.

For the production of the granular material both the textile and the PE film are reduced in a mill to a transportable size. In the next stage they are molten together and shaped into a granular material: Wootex.

The intended use of this granulate is to produce products as a replacement of materials from a natural source such as i.e. wood.

Quality control

in an internal quality control scheme MFI and bulk density are daily controlled.

Carbon Footprint

The fraction of textile materials used now for Wootex was formerly incinerated. Re-using the textile fraction for Wootex saves therefore 3,566 kg CO₂ / kg textile that would be burned. For recycled PE the amount of CO₂ is strongly reduced compared to a virgin PE (respectively 0,026 and 1,357 kg CO₂ per kg PE).

For the production of Wootex 0,361 kg CO₂/kg is calculated resulting in saving 1,88 kg CO₂ or 83 % /kg Wootex.

Specific properties

Wootex is characterized for its mechanical-, thermal-, durability- and impact properties, reported in Kiwa report DKW 15004JB.

Recyclability

Products made from Wootex are fully recyclable.

Kiwa Castor Gaea

Kiwa Castor Gaea is Kiwa's recognition for those products that contribute to the development of a circular economy in which resource efficiency is achieved and accelerated through the use of non-hazardous waste products of other supply chains, with reduced levels of energy and waste water and also a reduction in the CO₂ footprint is achieved.

The use of Kiwa Castor Gaea

The use of the logo of Kiwa Castor Gaea is permitted and is subject to Kiwa's rules and regulations for this particular logo.

Wootex has been evaluated according the requirements of Kiwa Manual K15012 and fulfils the requirement of > 45 points

Wootex

Validity of this Covenant

It is the intention of Vive to move the production to the Netherlands. Once that happens this Covenant becomes invalid and is subject to a full review of the operation.