



## ASSOCIAÇÃO PORTUGUESA DOS INDUSTRIAIS DE BORRACHA

### COMISSÃO TÉCNICA CT – 181 “PRODUTOS RECICLADOS DE PNEUS”

REF: Answer to the ECHA Public Consultation on microplastics restriction\_rubber infill

Date: 2020-08-26

(0)

The Portuguese Technical Commission CT-181 “Produtos reciclados de pneus” (*Recycled products from Tyres*) is answering to the ECHA Public Consultation through the present Document “Answer to the ECHA Public Consultation on microplastics restriction\_rubber infill”.

Introducing and describing shortly CT-181: I, Vasco Pampulim, Chemical Engineer by IST, am its President, and the other CT-181 Members are: APIB – Associação Portuguesa dos Industriais de Borracha (*Portuguese Rubber Industry Association*); the 3 Portuguese tyre recycling Companies Recipneu, Biosafe and Biogoma; Valorpneu - Sociedade de Gestão de Pneus, Lda. (*Portuguese Used Tyres Management Company*); ICTPOL / IST Lisbon Technical University, represented by Professor João Bordado; and participants in different CEN Technical Committees - CEN/TC 366, CEN/TC 136, CEN/TC 402, and CEN/TC 217 (until 2013, under the previous NEN convening period).

The ECHA reference to this answer to the ECHA Public Consultation is the Doc. of 11 June 2020 “Proposed ECHA 'ban\_restriction' - rest\_microplastics\_opinion\_seac\_draft\_en”.

The Portuguese Technical Commission CT-181, having a solid experience and knowledge regarding the technologic applications of tyre recycled rubber granulates and powders, including “rubber infill”, in this answer to the ECHA Public Consultation acts in representation of the Portuguese Tyre Recycling Industry.

Undoubtedly, one major and significant application, worldwide and also in a European basis, for the tyre recycled rubber granulates is the “rubber infill” application in synthetic turf sports fields, as described in the referred ECHA Doc.; also, this is recognized since decades as a very significant situation of a “circular economy” solution regarding the recycling of ELTs, representing a huge quantitative market – and support – for the tyre recycling Industry.

In case of a ECHA ban be decided to suspend the rubber infill application, there is a reasoned general opinion in this industrial sector of activity that the EU tyre recycling Industry will enter in collapse, also affecting very negatively the sportive sector of activity.

(1)

In this answer to the ECHA Public Consultation, CT-181 wants to emphasize and completely support the possible solution “RO4” for the restriction option, below described from the referred ECHA Doc.:

“Under RO4 (technical measures to limit emissions) benefits are expected to be maximized without outright banning the use of synthetic infill material, at least when compared to the other restriction options. If sufficiently effective technical measures are implemented then annual emissions can be reduced to (practically) zero (reduction to at least 50 kg/y/pitch or roughly 10% of current emissions). This was stated many times during the Consultation. Furthermore, there are no lost environmental benefits since recycled end-of-life tyres can be re-used as infill material (even though these might be

small). Leaching of chemicals in ELT infill material, such as zinc oxide, is not or only partly avoided in this scenario, but lower than under RO3. It is important to note that this RO would still allow average annual EU emissions of 1600 tonnes (10% of the original emissions). This analysis reflects all of the information available to SEAC.”

**CT-181 completely supports the “RO4 (technical measures to limit emissions)” solution, based in the recent technical Doc. CEN/TR 17519 “Surfaces for sports areas - Synthetic turf sports facilities - Guidance on how to minimize infill dispersion into the environment”, below described in point (2); this Doc. shows a very strong technical evidence to resolve the practically total containment of the tyre recycled rubber granulates – “rubber infill” particles – inside the synthetic turf area, avoiding practically any emission as “microplastics” for the surrounding environment.**

**Furthermore, if necessary, CT-181, fully supports the mandatory implementation by the EU Commission, under legislative proposal from ECHA, of the technical solutions described in the Doc. CEN/TR 17519, to be applicable in all – present and future – existing synthetic turf pitches in Europe. This will be an excellent and effective solution to resolve completely the “rubber infill” aspect of the proposed “microplastics restriction” under consultation.**

**Also, this solution will also contribute for the continuous implementation in the EU of the fundamental social and economic aspects of the “circular economy” concept regarding the continuation of use of large quantities of tyre recycled rubber granulates in the infilling of synthetic sport pitches.**

(2)

**CEN/TR 17519** : This Technical Report was already formally approved by CEN, and its Publication start date is **11/09/2020**. For appreciation, the Doc. “FprCENTR-17519-Public.pdf” in its FINAL DRAFT version, dated March 2020, can be seen in the internet, and below is shown a brief informative description, taken from official sources:

CEN  
CEN/TR 17519:2020  
(MAIN)

Surfaces for sports areas - Synthetic turf sports facilities - Guidance on how to minimize infill dispersion into the environment

## **ABSTRACT**

This document describes ways of containing infill materials used in many types of synthetic turf sports fields within the confines of the sports field, so they are not dispersed into the surrounding environment. Different solutions are described covering the infill migration routes, like infill containment barriers around the field, boot cleaning stations at all entrances to the field, surface water field drainage and water run-off from the field, and snow removal.

The options described are based on examples of best practice identified by members of CEN/TC 217. This document is intended to be of practical use, to create awareness amongst field designers, venue owners, installation companies and those maintaining synthetic turf sports fields. It is applicable for all forms of synthetic turf sports field, from those used for community activities to those used by professional and elite level athletes.

## **GENERAL INFORMATION**

*Status* Not Published

*ICS* 97.150 - Floor coverings 97.220.10 - Sports facilities

<i>Technical Committee</i>	<u>CEN/TC 217 - Surfaces for sport areas</u>
<i>Drafting Committee</i>	<u>CEN/TC 217/WG 6 - Synthetic turf areas</u>
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(3)

Apart from the above described technical solution to limit – and resolve – the “microplastics” emissions of “rubber infill” from synthetic turf pitches, CT-181 also wants to contribute for a safe judgment of the “rubber infill” risks concerning the human health [*“PAH restriction”*] and the sea water contamination [*biodegradability in sea water*].

Concerning the “PAH restriction”, ICTPOL in behalf of CT-181 presents in the 1<sup>st</sup> ANNEX the Doc. “2020-01-17 ICTPOL Report - Determination of PAHs in rubber infill - Content and Migration into artificial sweat”, where it can be seen that in the Lab tests to evaluate the migration of the ‘8 carcinogenic’ PAHs from the tyre recycled “rubber infill” granulates to the (artificial) sweat, a null / negligible / not detectable concentration of those PAHs was found; therefore, the conclusion is that the rubber infill does not cause any measurable health problem in the human contact with the skin of football players during the game;

Concerning the “biodegradability in sea water”, ICTPOL in behalf of CT-181 will inform about a scientific work, to be realized soon by Portuguese scientific entities (IPMA + ICTPOL / IST Lisbon University + CIIMAR – see *the 3<sup>rd</sup> ANNEX*), with Lab test determinations to be performed using deep sea sludge and simulation of deep sea conditions (pressure, temperature, absence of oxygen and light) to follow the biodegradability process of different usual plastics and also including tyre recycled rubber granulates; the purpose of this scientific work regarding the “rubber infill” biodegradability in the ocean is to evaluate the risk for the deep sea marine life caused by the presence of rubber infill granulates, that is foreseen not to be a real and cumulative concern - see the Docs. presented in the 2<sup>nd</sup> ANNEX “2020-08-19 The Separating effect of the sea, Biodegradation in the sludge layer, More nutrients in the sea”, and in the 3<sup>rd</sup> ANNEX “2020-08-19 Modeling the uptake of suspended materials and salts in near shore waters – ELSEVIER, Tuccori et al-NIMB-2019\_451\_127-134”.

(4) ANNEX List:

- *1<sup>st</sup> Document in ANNEX*: “2020-01-17 ICTPOL Report - Determination of PAHs in rubber infill - Content and Migration into artificial sweat”

- *2<sup>nd</sup> Document in ANNEX*: “2020-08-19 The Separating effect of the sea, Biodegradation in the sludge layer, More nutrients in the sea”

- *3<sup>rd</sup> Document in ANNEX*: “2020-08-19 Modeling the uptake of suspended materials and salts in near shore waters – ELSEVIER, Tuccori et al-NIMB-2019\_451\_127-134”

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