# TIVAR™ Sterra™ ESD UHMW-PE

Recycled Ultra High Molecular Weight Polyethylene

ENVIRONMENTAL PRODUCT DATASHEET

TIVAR™ Sterra™ ESD UHMW-PE electro static dissipative shapes are produced from re-processed, industrial ultra high molecular weight polyethylene materials. These recycled shapes are re-purposed for use in a variety of industries such as agriculture and grain handling, as well as bulk material and parcel handling.

As a premium grade that is both economical and eco-friendly, TIVAR™ Sterra™ ESD UHMW-PE components exhibit excellent abrasion and corrosion resistance, outstanding impact strength, minimal moisture absorption and a low coefficient of friction. For these reasons, TIVAR™ Sterra™ ESD UHMW-PE is often a favored lining material for conveyor, chute and hopper applications, where electrical charge build-ups are prevalent.

As part of the Sterra™ product portfolio, TIVAR™ Sterra™ ESD contains recycled UHMW-PE and therefore is associated with a significantly lower carbon footprint compared to similar materials derived from non-recycled feedstocks.

| | | |
|---|---|---|
| | Recycled Content (post-industrial material) [%] | 70 |

| | | TIVAR™ Sterra™ ESD UHMW-PE | | compared to MCAM's manufactured material using 100% virgin resin | |
|---|---|---|---|---|---|
| | | Units | Indicative values | Units | Indicative values |
| LCA Data | Carbon footprint | kg CO2eq | 1.70 | kg CO2eq | 3.41 |

.

| | |
|---|---|
| Fundamentals | Life cycle assessment was calculated according to ISO 14040/44 (ISO, 2006; ISO/TC, 2006) using a mix of primary and secondary data including MLC 2023.2 (database). The total environmental footprint was calculated with the EFv3.1 method and the carbon footprint was evaluated with the IPCC 2021 method. In accordance with the life cycle assessment approach, all environmentally relevant processes within the system boundary are recorded and considered as far as possible. This LCA covers the 'cradle-to-gate' system boundary of the MCAM products. The further processing, the use phase and the end-of-life phase of the material products are excluded. The LCA has undergone a critical review by an independent third party according to ISO 14040/44. Value(s) indicated are global average(s) and may be based on a varying number of manufacturing locations, including single location based only. A mass balance method according to ISCC PLUS standards is applied; certification is in place. |
| Miscellaneous | Mitsubishi Chemical Group's production sites for the manufacturing of this material are certified according to ISO 9001:2015 and ISO 14001:2015. Production sites are using electricity from Renewable Sources (RE). |



**mcam.com**

This data sheet contains indicative information for courtesy purposes only and the assessment is made cradle-to-gate. It is not intended for conducting LCA calculations. The sharing of data with third parties is only allowed if such data is accompanied by the additional information and a link to the corresponding Mitsubishi Chemical Advanced Materials' environmental data sheet. The user shall ensure that such third parties also comply with the above-mentioned requirements. A complete life cycle analysis which can be used for a qualified assessment of our customers' environmental impacts can be made available subject to a specific non-disclosure agreement.

We do not provide any warranty, in particular with regard to the accuracy, completeness, fitness for a specific purpose or merchantability. We are not liable for damages arising out of or in connection with the use of this information.

It thus remains the customer's sole responsibility to test and assess the suitability and compatibility of Mitsubishi Chemical Advanced Materials' Products for its intended applications, processes and uses, and to choose those Products which according to its assessment meet the requirements applicable to the specific use of the finished product. The customer undertakes all liability in respect of the application, processing or use of the aforementioned information or product, or any consequence thereof, and shall verify its quality and other properties.