

Title (en)
PERSONAL PROTECTION DEVICE

Title (de)
PERSÖNLICHE SCHUTZAUSRÜSTUNG

Title (fr)
DISPOSITIF DE PROTECTION PERSONNELLE

Publication
EP 4197378 A1 20230621 (EN)

Application
EP 22214754 A 20221219

Priority
IT 202100031829 A 20211220

Abstract (en)

A protection device (10) for protecting a user, which can be associated with a wearable article, is described. The protection device (10) includes a mattress body (16) including a plurality of inflatable elements (18) arranged adjacent and side-by-side in sequence. Each inflatable element (18) has a tubular form so as to each define an internal chamber (19) shaped like a channel. The mattress body (16) assumes a first rest configuration in which the inflatable elements (18) are in a first deflated rest configuration arranged close to each other or stacked on top of each other. The mattress body (16) also assumes an active configuration in which said inflatable elements (18) are in a second active inflated configuration wherein:- the inflatable elements (18) have in said second active inflated configuration a linear and/or straight form;- each of the inflatable elements (18) has at least a first side wall (18a, 18b) connected adheringly to a second side wall (18a, 18b) of an adjacent inflatable element so as to define at least one adherence zone (31), and- each of the inflatable elements (18) has two opposite sides (18c, 18b) and wherein, in the sequence of inflatable elements (18), the opposite sides (18c, 18d) of the inflatable elements (18) define opposite external surfaces of the mattress body (16) where the opposite external surfaces include a surface or wall exposed to an impact or to the cold and a rear wall facing the user. Furthermore the adherence zone (31) between the first side wall (18a, 18b) of one inflatable element of the inflatable elements and the second side wall (18a, 18b) of an adjacent inflatable element acts as a tie member between the two opposite external surfaces so as to control a mattress-like form of the mattress body (16) in the second active inflated configuration. Furthermore, each of the inflatable elements (18) includes at least two sheets (28, 29) joined together along a perimeter so as to define a perimetral joining edge (30) and wherein, along, or in a direction of, said sequence of adjacent inflatable elements (18), each adherence zone (31) between the first side wall (18a, 18b) of an inflatable element of the inflatable elements and the second side wall (18a, 18b) of the adjacent inflatable element alternates with a perimetral joining edge (30) of the two sheets (28, 29) of a same inflatable element (18) so as to define a concertina or bellows structure.

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Citation (applicant)
• EP 3291697 B1 20181205 - DAINESE SPA [IT]
• EP 2373189 B1 20120704 - DAINESE SPA [IT]

Citation (search report)
• [A] CH 697172 A5 20080625 - CHRISTIAN KOEPPPEL DR MED [CH]
• [A] EP 1767108 A1 20070328 - ADEMAJ HAJDAR [LU]

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