FLAT PACKAGE FOR FIBER

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ABSTRACT

The present invention provides a flat package for fiber made of a transparent material, in which a lateral groove is provided for accepting a fiber tube, and two ring grooves are provided for accepting the winding fiber; the end of the fiber can be put in another lateral groove for preventing from being cut when the package is closed; a specification sheet can be put in the center of the package before the package is closed; a flange and a groove are provided respectively on the upper cover and the lower cover for closing of the package.
Fig. 3
FLAT PACKAGE FOR FIBER

FIELD OF THE INVENTION

[0001] The present invention relates to a flat package for fiber, and more particularly to a flat package for fiber that a lateral groove is provided for accepting a fiber tube.

BACKGROUND OF THE INVENTION

[0002] A conventional package for fiber is shown in FIG. 1, in which a rectangular package 1 for fiber is made of a transparent plastic material, having an upper cover 11 and a lower cover 12 to be formed integrally. Two concave circular disks 121 are formed on the lower cover 12, and a groove 122 is formed between the two concave circular disks 121 on the top. Two concave troughs 124 are formed respectively at each side of the lower cover 12.

[0003] The groove 122 is used for accepting a fiber tube 2. The fiber 3 extended out from the fiber tube 2 is wound around to be disposed in the two concave circular disks 121.

[0004] In order to fix the fiber tube 2 and the fiber 3, a cover sheet 4 made of foam plastic is used to cover the two concave circular disks 121 and the groove 122.

[0005] Two longitudinal convex flanges 111 are formed respectively at each side of the upper cover 11, an oval convex disk 112 is formed in the middle of the upper cover 11. A rectangular concave disk 113 is formed in the middle of the convex disk 112. When closing the upper cover 11 and the lower cover 12, the two convex flanges 111 will be inserted respectively into the two concave troughs 124 so as to press the cover sheet 4 to fix the fiber tube 2 and the fiber 3. The opening 41 in the middle of the cover sheet 4 is for accepting the convex part 123 in the middle of the lower cover 12. The oval convex disk 112 is compatible with the two concave disks 121 of the lower cover 12. A specification sheet can be put into the rectangular concave disk 113.

[0006] The package 1 for fiber has several disadvantages as below:

[0007] 1. The fiber tube 2 in the groove 122 is not fixed, and will sway during transportation.

[0008] 2. The fiber 3 is wound around to be disposed in the two concave circular disks 121, and will also sway during transportation, and may be loose to mess up.

[0009] 3. The cover sheet 4 is pressed to fix the fiber tube 2 and the fiber 3, but it would sometimes hurt the fiber 3.

OBJECT OF THE INVENTION

[0010] It is therefore an object of the present invention to provide a package for fiber, in which a lateral groove is provided for accepting a fiber tube, and two ring grooves are provided for accepting the winding fiber, the end of the fiber can be put in another lateral groove for preventing from being cut when the package is closed; a specification sheet can be put in the center of the package before the package is closed; a flange and a groove are provided respectively on the upper cover and the lower cover for closing of the package, so as to make the storage, transportation and use of a fiber product conveniently and perfectly.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] FIG. 1 shows schematically the perspective view of a conventional package for fiber.

[0012] FIG. 2 shows schematically the perspective view of a package for fiber according to the present invention.

[0013] FIG. 3 shows schematically how to use the package for fiber according to the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0014] Referring to FIG. 2, which shows schematically the perspective view of a package for fiber according to the present invention. A rectangular package 1 for fiber is made of a transparent plastic material by mold pressing, having an upper cover 11 and a lower cover 12 to be formed integrally. Two ring grooves 121 are formed on the lower cover 12, and a lateral groove 122 is formed between the two ring grooves 121 on the top.

[0015] The lateral groove 122 is used for accepting a fiber tube 2. In order to clip the fiber tube 2, convex buttons 1221 are formed along the lateral groove 122, extending inwardly to narrow the width of the lateral groove 122. When a fiber tube 2 is to be put into the lateral groove 122, the fiber tube 2 has to be pressed so as to be jammed into the lateral groove 122. Since the plastic material of the package 1 for fiber is elastic, it is very easy to pull out the fiber tube 2. This is the key point of the present invention.

[0016] The fiber 3 extended out from the fiber tube 2 is wound around to be disposed in the two ring grooves 121, as shown in FIG. 2. A convex mound 1211 is provided in the ring groove 121 per 90°, so there are four convex mounds 1211 in the ring groove 121. The convex mound 1211 is used to separate the fiber 3 and the lower cover 12 to prevent the fiber 3 from being rubbed by the lower cover 12.

[0017] A rectangular area 123 (not easy to be shown) is formed in the middle of the lower cover 12, having a left side 1231 and a right side 1232 thereof to be located respectively on the round pedestals 124 in the middle of the ring grooves 121. The rectangular area 123 is a little lower than the round pedestal 124, and can be put in with a fiber specification sheet 4.

[0018] The end of the fiber 3 is put in another lateral groove 125. The lateral groove 125 is in the opposite side of the lateral groove 122, and no convex button 1221 is formed therein.

[0019] In order to close the upper cover 11 and the lower cover 12, a “U” type groove 126 is formed along the peripheral of the lower cover 12, and a “T” type flute 111 is formed along the peripheral of the upper cover 11. When the “T” type flute 111 is jammed into the “U” type groove 126, the closing of the upper cover 11 and the lower cover 12 is achieved. An oval convex disk 112 and a rectangular convex disk 113 are formed in the middle of the upper cover 11 to match with the ring grooves 121 and the rectangular area 134, so that the upper cover 11 and the lower cover 12 can be attached together when closing.

[0020] In order to open the upper cover 11 and the lower cover 12 conveniently, the right half of the long edge of the upper cover 11 is cut a little inward, while the left half of the
long edge of the lower cover 12 is cut a little inward, so that there is a little difference along the long edge between the upper cover 11 and the lower cover 12, and is very convenient to open the upper cover 11 and the lower cover 12.

[0021] FIG. 3 shows that the fiber tube 2 is put in the lateral groove 122 (it was covered by the fiber specification sheet 4), and fiber 3 is wound around to be disposed in the two ring grooves 121, the fiber specification sheet 4 is put between the left side 1231 and the right side 1232 of the rectangular area 123.

[0022] The advantages of the present invention are as follows:

[0023] 1. The fiber tube 2 is clipped firmly in the lateral groove 122, and is very easy to pull out.

[0024] 2. The fiber 3 is wound around to be disposed in the two ring grooves 121, and will not be loose to mess up. The four convex mounds 1211 provided in the ring groove 121 are used to separate the fiber 3 and the lower cover 12 to prevent the fiber 3 from being rubbed by the lower cover 12.

[0025] 3. The conventional cover sheet 4' made of foam plastic is omitted to save the cost.

[0026] 4. The “Π” type flange 111 is jammed into the “L” type groove 126 to achieve the closing of the upper cover 11 and the lower cover 12 firmly. The oval convex disk 112 and the rectangular convex disk 113 are formed in the middle of the upper cover 11 to match with the ring grooves 121 and the rectangular area 123, so that the upper cover 11 and the lower cover 12 can be attached together to press the fiber specification sheet 4 when closing.

[0027] 5. Since there is a little difference along the long edge between the upper cover 11 and the lower cover 12, it is very convenient to open the upper cover 11 and the lower cover 12.

[0028] The spirit and scope of the present invention depend only upon the following claims, and are not limited by the above embodiment.

What is claimed is:

1. A flat package for fiber, comprising a rectangular package made of a plastic material by mold pressing, having an upper cover and a lower cover to be formed integrally, two ring grooves being formed on the lower cover, and a lateral groove being formed between the two ring grooves on the top; convex buttons being formed along the lateral groove, extending inwardly to narrow the width of the lateral groove.

2. A flat package for fiber according to claim 1, wherein convex mounds being provided in the ring groove.

3. A flat package for fiber according to claim 1, wherein a rectangular area being formed in the middle of the lower cover, having a left side and a right side thereof to be located respectively on a round pedestal in the middle of each of the ring grooves, the rectangular area being a little lower than the round pedestal, and can be put in with a fiber specification sheet.

4. A flat package for fiber according to claim 1, wherein another lateral groove being formed in the opposite side of said lateral groove for putting in with the end of the fiber, and no convex button being formed therein.

5. A flat package for fiber according to claim 1, wherein a “Π” type groove being formed along the peripheral of the lower cover, and a “Π” type flange being formed along the peripheral of the upper cover, when the “Π” type flange being jammed into the “Π” type groove, the closing of the upper cover and the lower cover is achieved.

6. A flat package for fiber according to claim 1, wherein an oval convex disk and a rectangular convex disk being formed in the middle of the upper cover to match with the ring grooves and the rectangular area, so that the upper cover and the lower cover can be attached together when closing.

7. A flat package for fiber according to claim 1, wherein the right half of the long edge of the upper cover being cut a little inward, while the left half of the long edge of the lower cover being cut a little inward, so that there is a little difference along the long edge between the upper cover and the lower cover, and is very convenient to open the upper cover and the lower cover.

8. A flat package for fiber according to claim 1, wherein the plastic material is transparent or translucent.

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