

A PACKING FOR EXTRUDED FRAME JUNCTIONS OF A CLOSURE

1 The present invention relates to a part of the extruded frame of a closure and, more particularly, to a packing for extruded frame junctions.

 Conventional packings for extruded frame
5 junctions of a closure are as shown in Figures 1 and 2. The packing includes a soft packing medium 1 made of polyvinylchloride, a metal netting 2 attached to one surface of medium 1 and a thin transparent
10 plastics paper 3 adhered to the opposite surface of medium. It has a continuous length. If a left stile 4 and an upper rail 5 of an extruded outer frame are to be secured together by a metal piece 6 and two screws
15 7, the described packing is used in order to prevent the rain from leaking through the junction of stile 4 and rail 5 into the room since stile 4 and rail 5 are of hard materials. Upon assembling, a correct segment of the packing having a shape suitable for the
20 junction between stile 4 and rail 5 is cut from the continuous packing and then the thin plastic paper 3 is torn off the packing segment which then is adhered to a junction portion 41 of stile 4. After rail 5 is
25 matched against metal netting 2, screws 7 secure the stile 4 and rail 5 together. Metal netting 2 is provided for a reinforcing purpose in order that the soft medium 1 will not be ruined when the stile 4 and rail 5 are tightly clamped together by screws 7.

 The above packing has the following disadvantages:

1 1. The packing segment must be separately cut
from the continuous packing to have a proper shape to
match with the respective junction between frame
members, which is troublesome.

5 2. Metal netting 2 is prone to be contaminated
with dust or foreign materials which deteriorate the
leakage-preventing function of the packing segment .

10 3. The packing has only one adhesive surface
(the opposite surface) and thus cannot have a symmetr-
ical usage, that is, symmetrical junctions must have
separately cut packing segments. Since the numbers of
junctions and of differently-shaped packing segments
must be the same. The assembly work is therefore
time-consuming.

15 4. When the packing segment is compressed by
the stile 4 and rail 5, the metal netting 2 is
depressed into the packing medium 1 which may result
in the medium 1 being ruined and lose its leakage-
preventing function and/or that an edge burr of the
20 medium 1 extends from the space between the frame
members 4,5 to damage the appearance of the closure
frame.

It is an object of the present invention to
alleviate these disadvantages.

According to the present invention, a packing for an extruded frame junction of a closure comprises a soft packing medium having two opposite adhesive surfaces, a stepped top longitudinal edge and a rectangularly recessed bottom longitudinal edge, and release papers adhered to the two opposite surfaces.

The packing may include a longitudinal indented line or other line of weakness between the top and bottom edges. It may additionally include a transverse indented line or other line of weakness substantially perpendicular to the top and bottom edges.

In order that the present invention may be more readily understood, reference will now be made to the accompanying drawings, in which:-

Figure 1 is a schematic view of a prior packing for the extruded frame junctions of a closure,

Figure 2 is a schematic view showing the packing of Figure 1 in use,

Figure 3 is an exploded perspective view showing a packing according to the present invention,

Figure 4 is a front view showing the packing of Figure 3 torn into four pieces,

1 Figure 5 is a schematic view of an outer frame
of a closure,

 Figure 6 is a schematic view showing how the
packing of Figure 3 is used with extruded frame
5 junctions of a closure, and

 Figure 7 is a schematic view showing how the
packing is used with extended extruded frame junctions
of a closure.

 Referring now to Figures 3 and 4, the packing 10
10 includes a soft packing medium 11 made of polyvinyl-
chloride mixed with an adhesive and having two
opposite adhesive surfaces 101, and two release papers
12,13 respectively matchable with and adhered to the
two opposite surfaces 101. The packing medium 11 may
15 be made of other plastics.

 Packing 10 has a three-step top longitudinal
edge 14 with the intermediate step thereof being
longest, a rectangularly recessed bottom longitudinal
edge 15 with the recessed portion 16 thereof corres-
20 ponding to the intermediate step, an intermediate
longitudinal indented line 20 between edges 14,15, and
a transverse indented line 21 which is perpendicular
to the edges 14,15, intersects at the highest step
with top edge 14 and is positioned near a transverse
25 edge 17. If the packing 10 is torn along lines 20,21,
packing segments 102,103 and packing extensions
104,105 are obtained.

 As shown in Figures 5-7, the outer frame 30 of a
closure normally includes a left stile 31, a right
30 stile 32, an upper rail 33, an intermediate rail 34

1 and a lower rail 35 and in total, has six frame
junctions 301,302,303,304,305 and 306 which call for
six differently-shaped packing segments of the prior
art. The packing 10 of the present invention is used
5 as follows:

So far as junction 302 is concerned, the packing
segment 102 is used which is firstly torn from the
release paper 13 and then the adhesive surface 101
thus presented is adhered to a junction surface 321 of
10 the right stile 32. After the upper rail 33 is urged
against release paper 12 of the packing segment 102,
screws 50 and a metal piece 51 are used to secure the
stile 32 and rail 33 together.

When junction 306 is to be assembled, the
15 packing segment 103 is used. When junction 304 is to
be assembled, a packing segment 106 including the
packing segments 102,103 is used. These junctions are
assembled by a similar procedure to that described
above for junction 302.

20 Similar assembly procedures are also used for
junctions 301,303 and 305 respectively except that
release paper 12 and not 13 is torn from the respect-
ive packing segments 102,106 or 103.

If the outer frame 30 of the closure is extended
25 to include a right stile 32' and upper, intermediate
and lower rails 33', 34' and 35', as shown in Figure
7, similar procedures as described above can be
directly used except that packing extension(s) 104
and/or 105 are not torn from packing segment(s) 102
30 and/or 103.

1 The advantages of the packing 10 can be summarized as follows:

1. It can easily be produced by a press machine and no further shape-modification is required.

5 2. Since it has two adhesive surfaces 101 attached to release papers 12,13, symmetrical junctions can use the same packing (segment) the only difference being which release paper 12 or 13 is received, so that the assembly procedure is
10 simplified.

3. Release papers 12,13 are surface-applied with a smooth polyethylene film which will not be contaminated by dust or other foreign material and thus ensure a positive leakage-preventing function for
15 the packing 10.

4. Since the release papers 12,13 are harder than the packing medium 11, each release paper 12,13 functions similarly to a washer when the packing 10 is clamped between the frame members so that the clamped
20 packing 10 will not rupture and the packing medium 11 will not form an edge burr extending from the space between the frame members.



CLAIMS

- 1 1. A packing for an extruded frame junction of a
closure comprising a soft packing medium having two
opposite adhesive surfaces, a stepped top longitudinal
edge and a rectangularly recessed bottom longitudinal
5 edge, and release papers adhered to said two opposite
surfaces.
 2. A packing as claimed in claim 1, including a
longitudinal line of weakness between the top and
bottom edges.
 - 10 3. A packing as claimed in claim 1 or 2, including a
transverse line of weakness.
 4. A packing as claimed in claim 1, 2 or 3, wherein
the packing medium is made of plastics.
 5. A packing as claimed in any one of the preceding
15 claims, wherein the top edge has three-steps with the
intermediate step thereof being the longest.
 6. A packing as claimed in claim 5, wherein a
recessed portion of the bottom edge corresponds to
said intermediate step.
 - 20 7. A packing as claimed in claim 3, wherein the
transverse line intersects with the top edge at the
highest step.
 8. A packing substantially as hereinbefore described
with reference to and as shown in Figures 3-7 of the
25 accompanying drawings.
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