

Description**HANDLE****Technical Field**

- [0001] The invention provides a handle adapted to clip onto the seam of a conventional beverage or food can. The handle makes the can easier and more comfortable to hold as it is designed to fit easily into the hand of a user. With the handle attached the package may be held continuously by a user whilst being consumed, for example over a 20 minute period.
- [0002] Without the handle, a chilled can is too cold to be held continuously, so has to be put down. This is inconvenient and can lead to spillages when used on-the-go, at parties, events etc. The same issue arises if the can is heated, when the can may be too hot or dangerous to be held by the user and often has to be put down on a table or surface.

Summary of invention

- [0003] The invention provides a can handle adapted to be securely clipped to the seam provided at the top end of a beverage or food can. The can handle is preferably injection moulded from thermoplastic material, for example Polypropylene (PP) or High Density Polyethylene (HDPE).
- [0004] The handle increases the time that a chilled metal can stays cool and therefore improves the drinking experience for the user i.e. improves mouth feel and therefore the drinking experience. If the consumer's hand is prevented from contacting the wall of the can, the inventors have found that it takes over 50% longer for the can to warm up by a set amount, for example from 6 to 12 degrees C.
- [0005] Furthermore, the plastic rim provided by the handle is thicker than a conventional can seam and may be profiled to make the drinking experience for the user more like drinking from a glass.
- [0006] The handle is designed to be reusable and therefore, if used in a multi-pack only one handle is required in each multi-pack. Also, the external surface of the handle provides space for product branding e.g. on the cover plate, making it ideally suited for product promotions and the like.
- [0007] The handle design suits a full range of conventional can sizes i.e. can

diameters from 52 to 99 mm with large sizes being particularly applicable as these larger sizes are often heavy and more awkward for a user to grip. Furthermore, can heights from 60 to 250 mm can be accommodated by the handle and this equates to can capacities from 150 to 1500 ml.

Brief description of drawings

- [0008] The invention will now be described, by way of example only, with reference to the accompanying drawings, in which;
- Figure 1 is a perspective view of a handle according to the invention, before assembly onto a can;
- Fig. 1A is a side, cross section view through the handle according to the invention, as illustrated in Fig. 1;
- Fig. 2 is a bottom view underneath the handle, showing the position of the clips and the internal strengthening ribs on the grip part of the handle;
- Fig. 3 is a perspective view of a conventional beverage can, onto which a handle as shown in Fig. 1 is assembled;
- Fig. 3A is a side, cross section view through the beverage can illustrated in Fig. 3, more clearly showing how the handle is clipped to the seam between the side wall and top end of the beverage can;
- Fig. 4A is an enlarged side section view of the retention clip of the handle shown in Fig. 3A;
- Fig. 4B is an enlarged side section view of the handle shown in Fig. 3A, at an angular position where there is no clip;
- Fig. 5 is a plan view of a multi-pack, with the handle according to the invention assembled on one of the beverage cans;
- Fig 6A is a plan view of an opened conventional beverage can, onto which a handle as shown in Fig. 1 is assembled, so that the drinking aperture remains unobstructed;
- Fig 6B is a plan view of an opened conventional beverage can, onto which a handle as shown in Fig. 1 is assembled, so that the drinking aperture is covered.
- [0009] Referring to Figs. 1 and 2, a handle 50 according to the invention has a grip 60, a complete (360 degree) attachment ring 70, a cover plate 72, a main clip 75 and a retention clip 80. The position of main clip 80 is aligned

with the grip 60 to give the handle 50 strength. The retention clip 80 is positioned opposite (180 degrees from) the grip 60 and this clip is removable using a tab feature 90. As shown in Fig. 2, the grip 60 is further strengthened by provision with a plurality of internal strengthening ribs 65.

[0010] Referring to Figs. 3 and 4, the handle 50 is assembled onto the top of a beverage can 1 having a side-wall 5, top 10 and base 20. As conventional, the top 10 and side-wall 5 of the beverage can 1 is seamed together by a double seam 15 and defines a drinking aperture 12 that is opened using an opening tab 13, which presses against a score (not shown). The beverage can 1 may be opened before or after the handle 50 is fitted. The handle 50 has a complete (360 degree) attachment ring 70, which is placed onto the top 10 of the beverage can and the main clip 75 and retention clip 80 are fitted under the double seam 15. Cut out windows 85 are positioned above the main clip 75 and retention clip 80, to allow moulding in line of draw i.e. without creating re-entrant features (see Figs. 3A and 4A). Fig. 4B is an enlarged side view taken at an angular position where there is no clip.

[0011] Fig. 5 shows the conventional arrangement of beverage cans in a multi-pack. As shown, the grip 60 of the handle 50 locates in the space between cans and no extra space is required in the multi-pack. This provides a mechanism to allow distribution of the handles 50, particularly where each multipack has one reusable handle.

[0012] Finally, Figs 6A and 6B show the handle 50 attached to an open beverage can. The main clip 75 and retention clip 80 are securely fixed under the seam (not shown) of the beverage can and the cover plate 72 extends over a portion of the top of the can. In a first position (see Fig. 6A), the drinking aperture 12 is available for a user to drink from the can, whilst holding the grip 60 of the handle. However, after opening the handle has a cover plate 72, which acts a reclosure when the cover plate 72 is rotated to cover the aperture 12 (see Fig. 6B). The cover plate 72 stops access by insects and / or for liquids from being easily poured into the can.

[0013] Although the handle proposed by the present invention has been

illustrated and described in relation to a chilled beverage can, it will be apparent to persons skilled in the art how a handle according to the invention may also be applied to hot beverage and food containers.

Claims

1. A handle 50 for affixing to a container having a side-wall 5 and a top 10 joined together by a seam 15, the handle 50 having a grip 60 adapted to be held by a user
characterised in that
a complete (360 degree) attachment ring 70 is designed to fit around the top 10 of the container and has a main clip 75 aligned with the grip 60 and a retention clip 80 positioned 180 degrees from the grip 60.
2. A handle 50 as claimed in claim 1, wherein the retention clip 80 may be removed from the container using a tab 90 on the attachment ring 70.
3. A handle 50 as claimed in claim 2, wherein after removing the retention clip 80, the attachment ring 70 is rotated to remove the main clip 75.
4. A handle 50 as claimed in any of the aforementioned claims, injection moulded from thermoplastic material.
5. A handle 50 as claimed in claim 4, further including windows 85 positioned above the main clip 75 and retention clip 80 to allow moulding in line of draw.
6. A handle 50 as claimed in any of the aforementioned claims, further including a cover plate 72.
7. A handle 50 as claimed in claim 6, wherein the external surface of the cover plate 72 is used for product branding.
8. A handle 50 as claimed in claim 6 or claim 7, wherein the cover plate 72 may be rotated to cover an aperture 12 in the container and prevent access to the contents of the container by a foreign body.
9. A multi-pack comprising a plurality of containers and one or more handles 50 according to any of the aforementioned claims, wherein the grip 60 is located between adjacent containers.