

Title (en)
TAMPER-INDICATING CLOSURE

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Application
EP 82302952 A 19820608

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• US 27177681 A 19810608
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Abstract (en)
[origin: EP0149198A2] A thermoplastic closure (10) for fitment to a container for packaging a product capable of producing internal container pressure, e.g., a carbonated beverage, is disclosed. The closure (10) comprises a top wall (12) and an annular sidewall (14). A closure thread (20) is provided on the inside surface of the sidewall (14) and is preferably extended to require the user to make two turning motions to achieve removal. Thread (20) cooperates with the container neck thread (42) to achieve fitment of the closure (10) to the container neck (40). A sealing system (22) adjacent the top wall of the closure provides sealing of the closure to the container. One or more gas venting grooves (26) are provided on the closure for venting of pressurized gas from the container upon loss of the seal when the closure is rotated to remove it from the container. In order to strengthen the closure (10) where it is crossed by the groove(s) (26), a rigidifying structure (34) is provided at each point of traverse by the vent groove(s) (26) of the closure thread (20). The height of the rigidifying structure (34) is less than that of the thread (20). Stand-off protuberances (32) are preferably provided about the lower inside surface (28) of sidewall (14). A heat-shrinkable tamper-indicating means (16) is attached to the lowermost edge of the sidewall of the closure (10). Application of heat to the tamper-indicating means (16) causes it to shrink towards the container and to a point of interference with a container flange (48). The combination of tamper-indication means (16) and venting structure (26) enables a closure to be formed with tamperproof properties and compatible resistance to premature release from a pressurized container.

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Cited by
FR2778641A1; EP0186600A3; DE4113428C3; US4699284A; WO8404736A1; WO9958410A1; WO8602335A1; WO9219510A1

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