



New connection on: : 18-04-2018 : 02:18:10 - Last disconnection on: : 17-04-2018 : 02:13:59

V 4.0.0.44358(LP,U,linux) (Rev:43856 2017-04-27 09:03:29+0200#(D201802)) (RPM D201802)

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[No database/cluster active] ..fi epodoc

 Database: EPODOC

[EPODOC: SS 1] (paper or plastic) 2d cup

Results in EPODOC **7.077**

[SS 2] * and (thermal 3d insulation=)

An expression is expected. *ERROR(-101305)*

[SS 2] * and (thermal 3d insulation)

Results in EPODOC **97**

[SS 3] * and hexagon+

Results in EPODOC **0**

[SS 4] 2

Results in EPODOC **97**

[SS 5] ..v

[EPODOC: SS 5] ..li 87-97



87/97 © EPODOC / EPO

PN - [CN2091115U](#) U 19911225

PR - CN1991203977U 19910314

AP - CN1991203977U 19910314

DT - I

PA - JINCHE LTD CO [CN]

TI - VACUUM **PAPER CUP**

AB - The utility model relates to a vacuum **paper cup**, comprising an inner cup, a middle cup and an outer cup. The characteristic of bad thermal conductivity of air can be utilized; a plurality of airtight air chambers are arranged on the outer side surface of a **paper cup**; the inner side surface of the **paper cup** is isolated from the outside flowing air; the temperature of the drink filled in the **paper cup** can be kept; besides, a short distance exists between the bottom of a cup and the feet of the cup; therefore, when the **paper cup** is placed on a desktop, an airtight air chamber is formed between the bottom of a cup and the desktop; the contact together with the outside flowing air can be isolated; **thermal insulation** effect can be achieved.

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PN - [CN2618515Y](#) Y 20040602

PR - CN2003230175U 20030409

AP - CN2003230175U 20030409

DT - I

PA - XINFUSHENG PAPER CONTAINER MAC [CN]

TI - Double layer heat insulation **paper cup**

AB - The utility model discloses a double-layer **thermal insulation paper cup**, comprising a cup body and an outer sleeve drum which is arranged outside the cup body; wherein the cup body comprises side walls, a cup bottom which is arranged at the lower part of the side walls, a transition part at the lower part of the cup bottom and a lower edge part at the lower part of the transition part, the upper opening of the transition part is smaller than the lower opening. On the projection of the plane where the symmetrical central line of the cup is positioned, angle, which is formed by the connection line between the crossing point of the profile projection line of the side walls and the profile projection line of the transition part and the crossing point of the profile projection line of the transition part and the profile projection line of the lower edge part and the profile projection line of the side walls, is equal to 90 degrees and smaller than 180 degrees. The utility model has the function of **thermal insulation** for air clearance formed between the cup body and the outer sleeve drum, and has the advantages of simple manufacturing process, low manufacturing cost, elegant appearance, convenience for handholding the **paper cup** and guaranteeing **thermal insulation** with adequate effective mode.

89/97 © EPODOC / EPO

PN - [CN2614569Y](#) Y 20040512

PR - CN2003221152U 20030411

AP - CN2003221152U 20030411

DT - I

PA - TONGYI ENTPR CHINA INVEST CO L [CN]

TI - Double-layer **thermal insulation paper cup**

AB - The utility model discloses a double layer heat-proof dixie cup with a cup wall which comprises an inner side wall and an outer side wall. Wherein the upper end of the outer side wall is connected with the upper end of the inner side wall, and the lower end of the outer side wall which is rolled up in the range of no less than 180 degrees toward inner side is fixed on the inner side wall and surrounds the cylindrical lip at the bottom of the inner side wall along the circular direction, while the upper portion of the outer side wall is embossed toward outside of the cup to form a gap between the upper portion and the lower portion of the inner side wall and the outer side wall along the circular direction, thereby the upper portion and the lower portion of the dixie cup have better heat-holding and heat-insulating effects, and the consumer uniformly feels the hand not burned when holding the upper portion or the lower portion of the cup.

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PN - [CN2603045Y](#) Y 20040211

PR - CN2003219968U 20030218

AP - CN2003219968U 20030218

DT - I

PA - FANG SHOULIANG [CN]

TI - **Thermal-insulation** paper tank and **paper cup**

AB - The utility model discloses a **thermal-insulation** paper tank and paper cap, comprising an inner layer and a PE layer on the inner surface of the inner layer. The utility model is characterized in that the exterior of the inner layer is provided with an outer layer, the upper and lower edges of both the outer layer and the inner layer are stuck together, with a gap reserved between the inner layer and the outer layer for the forming of an air layer. The **thermal-insulation** paper tank and paper cap are not only thermal insulating but also thermal preservation and therefore can be used as a bowl for packing instant foods such as instant noodles or as a disposable water cup.

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PN - [CN2638583Y](#) Y 20040908

PR - CN2003207214U 20030809

AP - CN2003207214U 20030809

DT - I

PA - CAI GUIPING [CN]

TI - Support-type anti-burn **paper** bowl (**cup**)

AB - The utility model discloses a supported anti scald **paper** bowl(**cup**), which relates to the improvement of the anti scald paper bowl and **paper cup**. The utility model comprises a bowl body, a bowl bottom and a coat. A supporting body is arranged additionally between the air clearance of the bowl body and the coat; the supporting body is made by undular corrugated paper whose upper part is smaller and lower part bigger. As the corrugated paper is arranged additionally as the supporting body between the bowl body or the cup body and the coat, the utility model increases the strength of the anti scald paper bower and the anti scald **paper cup**, and overcomes effectively the defects that the anti scald paper bower or **paper cup** sinks internally

when being held. Therefore, the utility model improves greatly the effect of **thermal insulation** and anti scald.

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PN - [CN2642166Y](#) Y 20040922
PR - CN2003207208U 20030809
AP - CN2003207208U 20030809
DT - I
PA - CAI GUIPING [CN]
TI - Reinforced scald preventing **paper bowl (cup)**
AB - A strengthened anti-burning **paper bowl (cup)** relates to an improvement of anti-burning layer structure of anti-burning paper bowl and **paper cup**, comprising a bowl body, a bowl bottom, and an anti-burning layer. An air gap with small top and big bottom is formed between the anti-burning layer and the bowl body, the anti-burning layer is arranged with internally concave trench with arc section to enhance strength of the anti-burning layer. The utility model overcomes defects that the anti-burning bowl and **paper cup** are easy to become shriveled when filled with hot water, improves effect of anti-burning and **thermal insulation**, and is a great improvement of anti-burning bowl and **paper cup**.

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PN - [CN2532023Y](#) Y 20030122
PR - CN2002205822U 20020226
AP - CN2002205822U 20020226
DT - I
PA - GUO ZEHUANG [CN]
TI - **Thermal-insulation** paper container
AB - The utility model is a paper heat-insulated container which mainly comprises a **paper** drinking **cup** and an external **paper** drinking **cup**. Wherein an internal **paper** drinking **cup** has a cup bottom and two annular bump orbit grooves disposed on the peripheral face at the outer side thereof, and the inner side face of the external **paper** drinking **cup** is partially coated with an amount of sprinkling-film foaming agent, so the area between the two annular bump orbit grooves on the peripheral face of the internal cup can be partitioned into a foaming space when the internal cup is nested in the external cup. The above structure combines the internal cup and the external cup into one body by nesting, and the annular convex axis grooves in the internal cup stabilize the bonding state of the internal and the external cups; and then the sprinkling-film foaming agent is heated and roasted in the foaming space to form a heat-insulating coating inwards with a certain thickness for providing the paper heat-insulated container having the safe heat insulation effect.

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PN - [CN2436046Y](#) Y 20010627
PR - CN2000217952U 20000609

AP - CN2000217952U 20000609
 DT - I
 PA - CONG SHENGRI [CN]
 TI - Double-layer cup
 AB - The utility model relates to a double-layer cup having an inner and an outer layer structures, which is characterized in that the outer layer of a container (1) at the inner layer is sheathed with a **paper cup** (2), the lower part of the **paper cup** (2) is folded inward to form a support frame (3) at the bottom of the **paper cup**. The contact area of paper materials of the inner layer and the outer layer is reduced by the arris-shaped structure at the inner layer of the utility model, the space between two layers is increased relatively, thermal conduction is decelerated, **thermal insulation** effect is enhanced, and cost is reduced. The utility model can be widely used for a food package field, such as the package of paper cups, paper bowls bowl instant noodles, etc., and the popularization of the green environmental protection plan of a country is profited.

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PN - [CH561528](#) A5 19750515
 PR - CH19740002056 19740214
 AP - CH19740002056 19740214
 DT - *; Rep
 CCI - [A47G19/2288](#)
 PA - PLASTILKUNSTSTOFFVERARBEITUNG
 TI - **Plastic** drinking **cup** - double-wall assembly held by top rims and at bottom centres
 AB - The cup is of the throwaway type used in aeroplanes, and its double-wall structure ensures heat insulation by keeping the surface of contact with the finger at a distance from the inner cup (1). The outer cup (2) features a clamping ring (3) and a shoulder (4) while its bottom has a central projection with a hollow centre (6). The rim of the inner cup (1) is beaded over with edge (7) ensuring a grip on ring (3). For further **thermal insulation** the gap between the inner and outer walls can be evacuated or partially evacuated, which also helps hold the halves together.

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PN - [BE737179](#) A 19700116
 PR - BE19690737179 19690807
 AP - BED737179 19690807
 DT - *; Rep
 CCI - [B65D1/265](#)
 TI - Thin-walled **plastic cup** with an insulating ring - for use with hot beverages
 AB - Thin-walled **plastic cup** for hot beverages widens out conically from its base towards its upper edge, the wall of the cup possessing at least two zones of different conicity, while at the place of higher conicity the exterior face of the cup wall carries a manipulating ring, which reinforces the wall and forms a **thermal insulation**.

97/97 © EPODOC / EPO

PN - [EP2149509](#) A1 20100203

PR - EP20080013715 20080731

AP - EP20080013715 20080731

DT - *; Rep

CT - || STSE (A1)
[GB2443790](#) A 20080521
 [X] (GUO TZER-HUANG [TW])
 [X] 1-3
 * page 4, line 7 - page 5,
 line 4; figures 1-3; claims 1,2 *;
[US6598786](#) B1 20030729
 [X] (GUO TZER-HUANG [TW])
 [X] 1-3
 * column 2, lines 32-59;
 figures 1-3; claims 1,2 *

CCI - [B65D81/3869](#) ; [B65D81/3874](#)

PA - GUO TZER-HUANG [TW]

TI - **Thermal insulation** paper container

AB - The invention relates to a novel paper **thermal - insulation** container with characteristics that it mainly comprises an interior **paper cup** (1) and an exterior **paper cup** (3). The interior **paper cup** has a cup bottom (12). On the outer side of the interior **paper cup** there are two surrounding rails (11). The exterior **paper cup** sets on the interior **paper cup** and combines with the interior **paper cup** by the surrounding rails. The surrounding rail, the interior **paper cup** and the exterior **paper cup** integratively form a space for foaming that will generate a **thermal-insulation** protective layer inside the space. The invention provides a safe and **thermal-insulation** paper container.

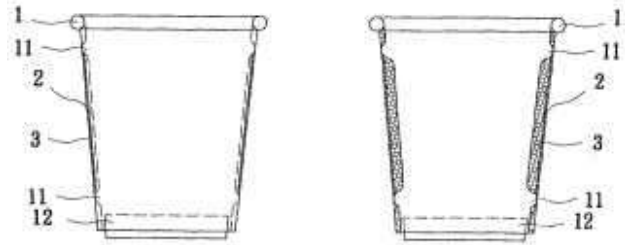


Figure 2