The invention discloses a packing bag of a liquid crystal display (LCD) and a packing method thereof. The packaging bag of a liquid crystal display includes a bag body and an opening. A sealing structure which can be repeatedly unsealed/sealed is disposed at the opening. The invention adopts the sealing structure at the opening of the packing bag to conveniently seal/unseal the opening of the packing bag. Therefore, the packing bag can be circularly reused and decrease the cost. The packing bag is sealed by the sealing structure without folding of the packing bag to decrease material of the packing bag and further decrease the cost.

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PACKING BAG OF LIQUID CRYSTAL DISPLAY AND PACKING METHOD THEREOF

TECHNICAL FIELD

[0001] The invention relates to the field of liquid crystal displays, and more particularly to a packing bag of a liquid crystal display (LCD) and a packing method thereof.

BACKGROUND

[0002] A TFT-LCD liquid crystal display includes a backlight module, a liquid crystal panel, a bezel, etc. The liquid crystal display can be formed by assembling those components. Thereafter, a worker puts the liquid crystal display into a packing bag, and then puts the packing bag into a carton for final packaging and shipment. Conventional packing methods generally include two types:

[0003] One is that the worker puts the liquid crystal display into the packing bag, which is further sealed by a sealing machine. The method uses the sealing machine to seal the packing bag, thus increasing equipment cost, reducing production efficiency, and being inconvenient for reuse and recovery.

[0004] The other is a packing bag that is folded for easy sealing. The packing bag is made of antistatic material. Sealed by the folding method, the packing bag shall be designed such that the overall dimensions of the packing bag are significantly larger than those of the module. Therefore, the material cost is increased, wrinkles and damage easily occur, and recovery and reuse are difficult. The packing bag often stretches due to its tension after folding, so external particles easily enter the module and cause contamination, or the stretched packing bag is affected by moisture, which is adverse to dust and damp prevention.

SUMMARY

[0005] The aim of the invention is to provide a packing bag of a liquid crystal display (LCD) and a packing method thereof that has a low cost and can be recovered.

[0006] The purpose of the invention is achieved by the following technical schemes:

[0007] A packaging bag of a liquid crystal display comprises a bag body and an opening, wherein a sealing structure which can be repeatedly unsealed/sealed is disposed at the opening.

[0008] Preferably, the sealing structure is a sealed structure, with advantages of dust and damp prevention and improvement of yield rate of the liquid crystal display.

[0009] Preferably, the sealing structure comprises a first chain and a second chain which are arranged on both sides of the opening. The first chain is provided with male parts or female parts. The second chain is provided with female parts or male parts matched with and secured to the first chain. This is a specific form of the sealing structure. The male parts are inserted into the female parts to fasten the sealing structure. Therefore, the sealing structure of the packing bag has favorable sealing performance, and can effectively prevent dust and moisture from entering the packing bag to avoid damage to the liquid crystal display.

[0010] Preferably, the sealing structure is provided with a zipper puller. Both sides of the zipper puller clamp the outsides of the first chain and the second chain. The zipper puller is convenient for sealing or unsealing the opening. Both sides of the zipper puller clamp the outsides of the first chain and the second chain to press the male parts into the female parts and realize sealing.

[0011] Preferably, the middle of the zipper puller is provided with a boss for unsealing the opening. The boss is located between the male parts and the female parts. When the opening is unsealed, the zipper puller is moved in the unsealing direction to separate the male parts from the female parts and realize unsealing.

[0012] Preferably, the packing bag is provided with one zipper puller. One zipper puller can save cost, and is located at one hand of the opening when the opening is sealed. The sealing structure has favorable sealing performance.

[0013] Preferably, the packing bag is provided with two zipper pullers. When a large liquid crystal display is packed, the two zipper pullers can be moved to the car. From both ends of the sealing structure thereby saving the operation time.

[0014] Preferably, the sealing structure is made of plastic material. The sealing structure made of plastic material has certain elasticity and favorable sealing performance, improves the dust and damp prevention effect, and does not easily scratch the liquid crystal display.

[0015] Preferably, the sealing structure is made of antistatic material. Friction between the sealing structure and the packing bag occurs when the liquid crystal display is put into or removed from the packing bag; the friction causes static discharge. Therefore, the sealing structure made of the antistatic material can inhibit static discharge and further reduce the possibility that the liquid crystal display is damaged by the static discharge.

[0016] A packing method of a liquid crystal display using the packing bag comprises the following steps:

[0017] A: Putting the liquid crystal display into the packing bag, and zipping up the sealing structure to seal the opening of the packing bag; and

[0018] B: Taking out the liquid crystal display from the packing bag for use, recovering the packing bag, and returning to step A.

[0019] Preferably, the step A includes:

[0020] A1: Clamping the liquid crystal display with antistatic mechanical arms, and putting the liquid crystal display into the packing bag; and

[0021] A2: Sealing the sealing structure with the antistatic mechanical arms.

[0022] The mechanical arms can improve degree of automation in the packing process and increase productivity. The antistatic mechanical arms can ensure electrostatic prevention in the whole packaging process.

[0023] The invention uses the sealing structure at the opening of the packing bag to conveniently seal/unseal the opening of the packing bag. Therefore, the packing bag can be circularly reused, and the cost is decreased. The packing bag is sealed by the sealing structure without folding to reduce the material of the packing bag and further decrease the cost.

DESCRIPTION OF FIGURES

[0024] FIG. 1 is a whole schematic diagram of the invention;

[0025] FIG. 2 is a schematic diagram of a sealing structure of the invention;

[0026] Wherein: 100. bag body; 200. sealing structure; 210. zipper puller; 211. boss; 221. first chain; 222. male part; 223. second chain; 224. female part.
The invention is further described by figures and the preferred embodiments as follows.

As shown in FIG. 1, a packing bag of a liquid crystal display (LCD) comprises: a bag body and an opening. The bag body is preferably made of antistatic material to prevent static discharge in the packing and handling process and protect the liquid crystal display in the packing bag from being damaged by the static discharge.

As shown in FIG. 2, a sealing structure is disposed at the opening of the packing bag. The sealing structure comprises a first chain and a second chain which are arranged on both sides of the opening. The first chain is provided with male parts. The second chain is provided with female parts matched with and secured to the first chain. The male parts are inserted into the female parts to fasten the sealing structure. Therefore, the sealing structure of the packing bag has favorable sealing performance, and can effectively prevent dust and moisture from entering the packing bag to avoid damage to the liquid crystal display. Optionally, the first chain is provided with the female parts; the second chain is provided with the male parts matched with and secured to the first chain; and the effect of the invention can also be realized.

The sealing structure is provided with two zipper pullers; both sides of each of the zipper pullers clamp the outside of the first chain and the second chain; and the middle of each of the zipper pullers is provided with a boss for unsealing the opening. The two zipper pullers are convenient for sealing or unsealing the opening. Both sides of each of the zipper pullers clamp the outside of the first chain and the second chain to press the male parts into the female parts and realize sealing. The boss is located between the male parts and the female parts. When the opening is unsealing, the zipper puller moves in the unsealing direction and the boss can separate the male parts from the female parts to realize unsealing. When a large liquid crystal display is packed, two zipper pullers can move to the center from both ends of the sealing structure to save the operation time. Also, the packing bag can be provided with one zipper puller to save the cost, and the zipper puller is located at the end of the opening when the opening is sealed. The sealing structure has favorable sealing performance. The sealing structure can be made of plastic material, with advantages of certain elasticity and favorable sealing performance, improving the dust and damp prevention effect, and does not easily scratch the liquid crystal display.

Furthermore, the sealing structure is made of antistatic material. Friction between the sealing structure and the packing bag occurs when the liquid crystal display is put into or taken out from the packing bag. The friction causes static discharge. Therefore, the sealing structure made of the antistatic material can inhibit static discharge to further reduce the possibility that the liquid crystal display is damaged by the static discharge.

A packing method of a liquid crystal display using the packing bag comprises the following steps:

A: Putting the liquid crystal display into the packing bag, and zipping up the sealing structure to seal the opening of the packing bag;

B: Taking out the liquid crystal display from the packing bag for use, recovering the packing bag, and returning to step A.

Specifically, step A comprises the following steps:

A1: Clamping the liquid crystal display with antistatic mechanical arms, and putting the liquid crystal display into the packing bag; and

A2: Sealing the sealing structure with the antistatic mechanical arms.

As the mechanical arms can improve degree of automation in the packing process and increase productivity, the antistatic mechanical arms can ensure electrostatic prevention in the whole packing process.

The above content is detailed description of the invention by using specific preferred embodiments. However, this invention is not limited to these specific embodiments. For the ordinary technical personnel in the technical field of the invention, on the premise of keeping the conception of the invention, the technical personnel can also make simple deductions or replacements, and all of which should be considered to belong to the protection scope of the invention.

We claim:

1. A packing bag of a liquid crystal display (LCD), comprising a bag body and an opening; wherein a sealing structure which can be repeatedly unsealed/sealed is disposed at the opening.

2. The packing bag of a liquid crystal display (LCD) of claim 1, wherein said sealing structure is a sealed structure.

3. The packing bag of a liquid crystal display (LCD) of claim 2, wherein said sealing structure comprises a first chain and a second chain which are arranged on both sides of the opening; said first chain is provided with male parts or female parts; and said second chain is provided with female parts or male parts matched with and secure to the first chain.

4. The packing bag of a liquid crystal display (LCD) of claim 3, wherein said sealing structure is provided with a zipper puller; both sides of said zipper puller clamp the outside of said first chain and said second chain.

5. The packing bag of a liquid crystal display (LCD) of claim 4, wherein the middle of said zipper puller is provided with a boss for unsealing the opening.

6. The packing bag of a liquid crystal display (LCD) of claim 4, wherein said zipper puller is one in number.

7. The packing bag of a liquid crystal display (LCD) of claim 4, wherein said zipper puller is two in number.

8. The packing bag of a liquid crystal display (LCD) of claim 1, wherein the sealing structure is made of plastic material.

9. The packing bag of a liquid crystal display (LCD) of claim 1, wherein the sealing structure is made of antistatic material.

10. A packing method of a liquid crystal display (LCD), comprising the following steps:

A: Putting a liquid crystal display into a packing bag of the liquid crystal display (LCD), and zipping up a sealing structure to seal an opening of said packing bag; and

B: Taking out the liquid crystal display from the packing bag for use, recovering the packing bag, and returning to step A.

11. The packing method of a liquid crystal display (LCD) of claim 10, wherein said step A comprises:

A1: Clamping the liquid crystal display with antistatic mechanical arms, and putting the liquid crystal display into said packing bag; and

A2: Sealing the sealing structure with the antistatic mechanical arms.