



Novetec Group Limited
諾維達有限公司

cool-novo™

Your Trustworthy And Affordable Medical And Sporting Lines

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Manufacturing Process

Blue Vinyl / Black Urethane Cold Pack

Product Characteristics & Performance

Our vinyl and urethane cold packs as differentiated from others in the market are made of extra fine quality heavy gauge polyvinyl chloride and premium urethane shell for the exterior. These materials have particularly good abrasion resistance, light weight and good mechanical strength. Moreover, the material can offer excellent durability, chemical resistance and affordability to the packs, making it an ideal choice for hygiene and healthcare necessities.

The packs are filled with formulated non-toxic biodegradable bentonite clay, a non-toxic silica gel, a natural hydrocolloid filling compound which remains pliable and soft at freezing temperatures, so it can comfortably mold to an injury site like an ankle or neck. These are allergic prove, making them an effective cold therapy pack. The bentonite clay filler benefits the body because it has the ability to produce a charge that is electrical in nature when it comes in contact with liquid. When the clay touches any type of fluid (normally water), it takes on a different charge and is thought to bind to any present toxins within the fluid.

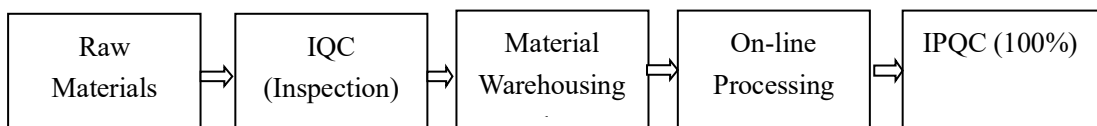
While in its natural state, it has negatively charged molecules. Most toxins and heavy metals carry positive charged molecules and this allows the two to bond together easily and stay united while the toxin removal process happens.

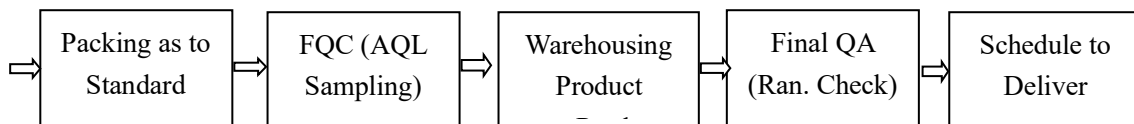
Durability & Flexibility: Both Vinyl and urethane cold packs provides exceptional durability and allows the pack to be chilled to temperatures lower than standard gel packs without damage. The unique bentonite clay gel filling ensures it remains soft and pliable, conforming seamlessly to the body's contours.

General Manufacturing Process

1. **Bentonite Clay Preparation**: Raw bentonite is purified and formulated to ensure consistency. It remains a soft, gel-like semi-solid (a "hydrocolloid") rather than a hard solid when frozen. The raw ore is typically sodium-treated and purified to enhance its gel properties and purity.
2. **Pouch Formation**: The manufacturing process can form it with pre-sealed edges and for partitioned packs, can create internal baffles or compartments to ensure the filler evenly stay in packs.
3. **Filling**: A set of tailored-made bentonite gel filling machine to precisely inject the formulated filler mixture into the open pouch plus pre-weighted compounding of additives to ensure the packs pliable when frozen.
4. **Sealing & Finishing**: The pouch's opening is hermetically sealed along its edges for leakage proof and in the meantime, it also undergoes a vacuum sealing process to get rid of air possibly trapping in it, this can facilitate a soft texture after freezing.
5. **Compression Test**: Each pack has to be pressed through a compression machine at a preset pressure to ensure no leakage of pack under pressure.
6. **Quality Control & Packaging**: Each finished pack is intensively inspected for seal integrity, product weight and dimensional accuracy, proper partition formation, and fill volume before final packaging in accordance to the requirements.

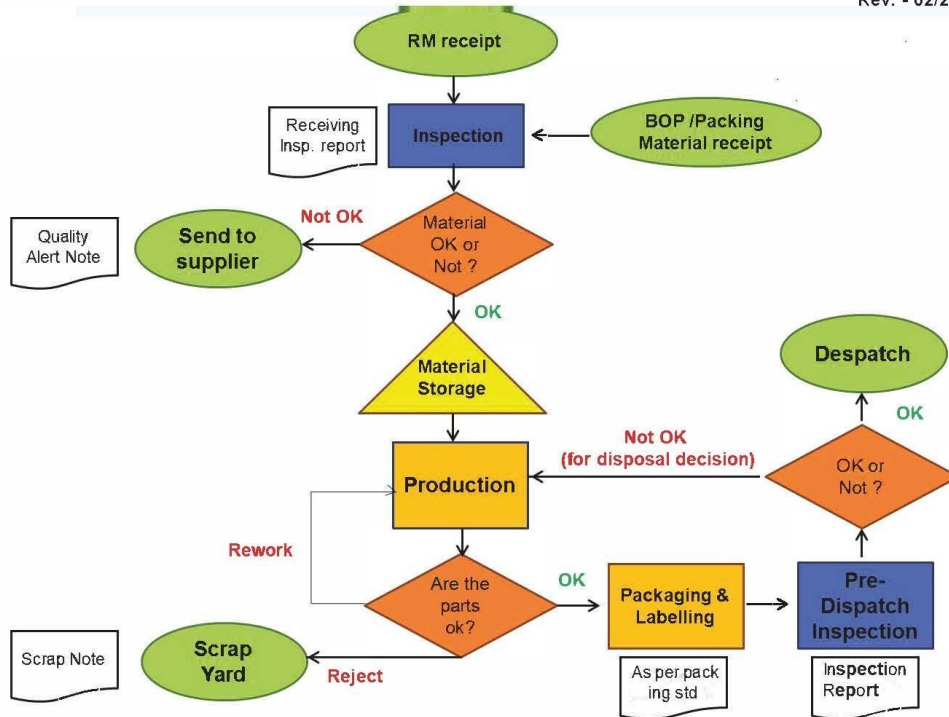
Key Processing Steps		
1	Bentonite Clay Preparation	Raw bentonite is purified and formulated to ensure consistency.
2	Pouch Formation	Molding for pre-sealed edges for standard and partitioned packs. This creates internal baffles or compartments to ensure the filler to evenly position inside packs.
3	Filling	Filling machine to precisely inject the formulated filler mixtures into open pouch plus pre-weighted compounding of necessary additives to ensure the packs pliable in good and consistent quality when frozen.
4	Sealing & Finishing	Hermetically sealed along edge for leakage proof, it also undergoes an air removal vacuum sealing process to get rid of air possibly trapping inside pack.
5	Compression Test	Pressing through a conveyor compression machine at the preset pressure to ensure its functionality and no leakage
6	Quality Control & Packaging:	Intensively inspected for seal integrity, product weight, dimensions, proper partition formation, and filled volume





Manufacturing Process Flowchart

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Compiled by Novetec Group Ltd.

The manufacturer reserves the right to change or upgrade the manufacturing process of the products without prior notice.

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