An article of warm-up apparel is constructed of metallized polymeric film. The film is cut to define a pattern. The pattern includes a sleeved waist-length garment for covering an upper torso of an individual. The garment including a central neck opening, a ventral panel, a dorsal panel and sleeve openings disposed between the panels. The metallized polymeric film is preferably an aluminized polyethylene terephthalate.
METALLIZED FILM WARM-UP APPAREL

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] None.

STATEMENT OF FEDERALLY SPONSORED RESEARCH

[0002] None.

BACKGROUND OF THE INVENTION

[0003] 1. Field of the Invention

[0004] The present invention relates to athletic warm-up apparel. In particular, it relates to a metallized film article of warm-up apparel which is disposable, lightweight, waterproof and easily recycled.

[0005] 2. Description of the Related Art

[0006] It is often recommended, by most fitness professionals, that prior to engaging in a training session, or staying in a competitive event, that the athlete engage in a warm-up routine in order to physically prepare their bodies for the activity. While a wide variety of warm-up routines are used in relation to the type of physical activity to be engaged in, all of the routines seek to achieve similar results in mobilizing the joints, raising the heart rate, and stretching the muscles. As a part of the routine, the individual desirably dresses in an article of warm-up apparel which is specific to the individual’s personal desires and needs as they relate to comfort, cost, appearance, and to the specific activity to be performed. This use of warm-up apparel lessens the time necessary for one to experience many of the enhanced beneficial effects experienced with an, exercise session or competitive, event including an increase in heart rate, which enables oxygen in the blood to travel faster, and a higher temperature in the muscles, which allows the fibers to have a greater range of extensibility and elasticity. While many different methods and devices are designed to assist an athlete throughout the warm-up process, the use by an athlete of a warm-up suit is probably the most rudimentary element of the process.

[0007] The article of warm-up apparel should be specifically designed so as to optimally activate the correct metabolic energy systems in order to allow for one’s optimal structural and metabolic efficiency throughout the activity. In many instances, the athletes will desire to wear a wind jacket, or pants, in order to warm-up for an event, and to resist wind-chill or to stay dry in a light rain. Wind jackets and pants are therefore typically constructed of synthetic materials, such as nylon or polyester, and often incorporate elastic waist bands or zippers. As such, these wind and waterproof suits are relatively costly to tailor, are specifically sized, and are not disposable, in use, just prior to the staging of an athlete event, such as when participating in a marathon or triathlon event. For these athletic events, it is not uncommon for the athlete wear the warm-up appeal during the early stages of the race, and then to discard the apparel at some point along the predetermined route. Discarding well known warm-up suits along the route, in this manner, is wasteful and generates a great deal of debris along the route. Moreover, because of the variety of materials and constructions of the warm-up apparel discarded, along the route, the materials are difficult to sort and cost to recycle and are therefore usually either discarded or given to those individuals which are in need.

[0008] While the foregoing articles of warm-up apparel offer some utility, a major disadvantage in such articles of apparel lies in the fact that they are relatively expensive to purchase, are not disposable, and are not inexpensively recycled. Thus, what is needed is an article of warm-up apparel which is disposable, lightweight, waterproof and is easily recycled. The present invention satisfies these needs.

BRIEF SUMMARY OF THE INVENTION

[0009] It is therefore an object of the present invention to provide an article of warm-up apparel which is disposable, lightweight, waterproof and easily recycled.

[0010] To overcome the problems of the prior art methods and in accordance with the purpose of the invention, as embodied and broadly described herein, briefly an article of warm-up apparel is provided. The article consists essentially of a sheet of metallized polymeric film. The film is cut to define a pattern. The pattern includes a sleeved waist-length garment for covering an upper torso of an individual. The garment including a central neck opening, a ventral panel, a dorsal panel and sleeve openings disposed between the panels. The metallized polymeric film is preferably made of an aluminized polyethylene terephthalate.

[0011] Additional advantages of the present invention will be set forth in part in the description that follows and in part will be obvious from the description or can be learned from practice of the invention. The advantages of the invention can be realized and obtained by the articles of clothing particularly pointed out in the appended claims.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

[0012] The accompanying drawings, which are incorporated in and which constitute a part of the specification illustrate at least one embodiment of the invention and, together with the description, explain the principles of the invention.

[0013] FIG. 1 is a front view of the basic embodiment of the metallized polymeric film apparel constructed into a sleeved waist-length jacket.

[0014] FIG. 2 is a front view of the metallized polymeric film constructed into an embodiment where the ventral panel is bisected into right and left panels having hook and loop fasteners for securing the right and left panels in a closed position.

[0015] FIG. 3 is a dorsal view of the metallized polymeric film constructed in an embodiment where the dorsal panel includes a pair of clear holes for ventilation, a flap overlaying the clear holes, a hood, and tear off releasable seams attaching the sleeves.

[0016] FIG. 4 is a side view of the metallized polymeric film constructed in an embodiment where the lateral edges of the ventral and dorsal panels form releasable, or tear-off, seams and in an accordion fold configuration, the right and left panels include a tie, and a hood.

[0017] FIG. 5 is a side view of the metallized polymeric film constructed in an embodiment where the sleeves are abbreviated, the neck opening is v-necked, and the under arm seams are releasable in a tear-off construction.

[0018] FIG. 6 is a front view of the metallized polymeric film constructed in a warm-up suit embodiment which includes a jacket, hood, pants, and mittens with closing ties.
for securing the face opening of the hood, jacket left and right panels, and waist opening of the pants.

DETAILED DESCRIPTION OF THE INVENTION

[0019] Unless specifically defined otherwise, all technical or scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which this invention belongs.

[0020] Although any of the methods and materials similar or equivalent to those described herein can be used in the practice or testing of the present invention, the preferred methods and materials are now described. Reference will now be made in detail to the presently preferred embodiments of the invention, examples of which are illustrated in the accompanying drawings wherein like numerals represent like features of the invention.

[0021] Referring now to the drawing figures, the present invention provides an article of warm-up apparel made of a sheet of metallized polymeric film. The warm-up apparel may be a jacket 10, pants 60 and mitten 64. The metallized polymeric film is desirably an aluminized polyethylene terephthalate film which is also known as a MYLAR™ (a trademark of the DuPont Company) film, or is commonly referred to as a space blanket. The film is generally a soft plastic and of thickness which is reasonably flexible and permits in use mobility and maneuverability by the wearer with ease, but yet is durable and strong enough so that it does not easily tear under normal exercise conditions. In its broadest sense, the sheet of metallized polymeric film is cut to define a jacket 10 pattern for covering an upper torso of an individual. The jacket 10 includes an a central neck opening 14, a ventral panel 12, a dorsal panel 13 and sleeve openings 18 which are disposed between the panels 12, 13 in any manner which is well known in the art.

[0022] It should be appreciated that the pattern layout is in any manner which is sufficient to construct the warm-up apparel disclosed herein. The pattern is desirably cut from a single sheet of film. In this manner, the film is cut so that the peripheral edges 45, 47 of the ventral 12 and dorsal panels 13 engage in an overlapping connection so as to define a seam 49 which extends vertically and downwardly under each arm 70 of the individual. The seams 49 may, but need not, be formed so that it is releasable in a tear-off construction so that the athlete can easily remove the jacket while participating in the event, such as when running. The seams 49 may also include, at the lateral peripheral edges 45, 47, a plurality of parallel accordion folds 46, with panels, so that two parallel folds open and close the panels in opposite directions. The accordion folds 46 are desirable in allowing the sides of the jacket 10 to expand and collapse as the athlete moves in warming-up in an event. This construction is particularly useful when using the jacket 10 during an event so that is does not restrict movement of the body.

[0023] In one embodiment of the present invention, the jacket 10 is cut into a pattern where the ventral panel 12 is bisected along an an anteroposterior axis into a right 24 and a left 26 panel. When constructing the jacket 10 with the right 24 and left 26 panels it is also desirable to include fasteners for closing the right 24 and left 26 panels such as a button, zipper, tie 44 or a hook and loop fastener 22 assembly. For the sake of simplicity, and in order to facilitate the construction of a garment which is low-in-cost and disposable, the pattern is most desirably cut to include the ties 44 and as a pair of oppositely aligned strands of film which laterally extend outwardly from the right 24 and the left 26 panels when configuring the overall layout of the pattern design. In that manner, one long string, or strand of a tie 44, is cut into the pattern in a configuration where the strands are directly and oppositely opposing narrow extensions of the film from each of the right 24 and left 26 panels of the ventral side 12 of the jacket 10. As shown in the drawing figures, in the presently preferred embodiment, it is desirably to include two pairs of ties 44 for securing the right 24 and left 26 front panels of the jacket 10 in a closed position.

[0024] In another embodiment of the present invention, metallized polymeric film pattern includes a hood 32. The hood 32 is a flap panel in the jacket 10 pattern which would extend from the central neck opening 14 of the dorsal panel 13. The hood 32 panel may, but need not, also include a pair of opposing ties 66, in a manner similar to that described above, for securing a face 72 opening side of the hood 32 in a closed position under the chin or the wearer. Securing the hood 32 with the hood closing ties 66 further enables the wearer to enhance the warming effect of the jacket 10 during preparation for an event, or to protect the head of the wearer from moisture during an event.

[0025] Another embodiment of the present invention includes a pattern construction assembly where the dorsal panel 13 includes clear holes 34 disposed between the shoulders of the wearer in order to allow the jacket 10 to ventilate both heat and moisture. To this end, it is desirable to cut a circumferential series of slots defining each clear hole 34 so that the wearer can easily “punch out” to film to generate to clear holes 34 if desired. In addition, it is also desirable to further include a second sheet of metallized polymeric film which is cut to define a rain flap 38. The rain flap 38 is desirably attached, to the dorsal panel 13, with at least an anterior edge portion of the flap 38 connected to the dorsal panel 13 so that the flap 38 overlaps the clear openings 34 to protect the openings 34 from rain. The rain flap 38 may, but need not, be easily cut in shape to define the upper half of the dorsal panel 13, as a separate sheet and then adhered along the anterior portion of the dorsal panel 13 by any method well known such as with an adhesive, hook and loop fastener, zipper, button or heat seal. In an even more desirably configuration, as shown in FIG. 3, the rain flap 38 makes a U-shaped attachment to the dorsal panel 13 in order to secure the lateral edges of the rain flap 38 to the dorsal panel 13 as the athlete participates in the activity, in order to construct a higher end garment.

[0026] It is also desirably to include, as a component of the apparel a sheet of the metallized polymeric film cut in a pattern that defines a pants 60 pattern. In the preferred embodiment the pants 60 pattern is also cut to define a pair of oppositely aligned closing ties 62 at the ventral side of the waist opening for tightening the waist of the pants 60 secure, but comfortably, against the waist of the wearer. Various pattern designs are specifically contemplated herein to accomplish this result including, without limitation, a pattern design which defines a series of vertical slits cut about the perimeter of the waist opening to act as belt loops (not shown) for receiving a single length of film tie 62, for threading and tie 62 through the slits, a horizontal fold about the periphery of the waist opening which is heat sealed to create a continuous belt loop (not shown), or at least one hook and loop fasteners (not shown) assembly, in substitution of the tie, or
ties 62, shown in FIG. 6, about the waist opening for decreasing the diameter of the opening to accommodate the waist size of the wearer.

In yet another embodiment of the present invention, the article of warm-up apparel includes sheets of metallized polymeric film which are cut into patterns which define a mitten 64. The mitten 64 pattern may, but need not, also include a portion which extends as a pair of ties (not shown) for closing the mitten about the arm of the wearer.

It may now be readily apparent to the person of skill in this art, that the article of warm-up apparel is desirably constructed with all of the pattern elements for the manufacture of a warm-up suit illustrated in FIG. 6. In this manner, the jacket 10, pants 60, and mitten 64 are easily constructed from pattern designs where the jacket 10, pants 60, and mitten 64 are differing in size range such as, for example, sizes in small, medium, large, and extra large.

While the present invention has been described in connection with the embodiments as described and illustrated above, it will be appreciated and understood by one of ordinary skill in the art that many modifications may be made in the pattern and construction of the metallized film warm-up apparel, in accordance with the present invention, without departing from the true spirit and scope of the invention as described and broadly claimed herein.

1. An article of warm-up apparel, consisting essentially of a sheet of metallized polymeric film cut to define a pattern including a sleeved waist-length garment for covering an upper torso of an individual, the garment including a central neck opening, a ventral panel, a dorsal panel and sleeve openings disposed between the panels.

2. The article of warm-up apparel according to claim 1, wherein the panels include lateral peripheral edges so that the ventral and dorsal panels attach to define a seam which extends under each arm of the individual.

3. The article of warm-up apparel according to claim 1, wherein the ventral panel is bisected along an along an anteroposterior axis into a right and a left panel.

4. The article of warm-up apparel according to claim 1, wherein the pattern is further cut to define a hood panel.

5. The article of warm-up apparel according to claim 1, wherein the central neck opening is a v-neck.

6. The article of warm-up apparel according to claim 1, wherein the film is consisting essentially of aluminized polyethylene terephthalate.

7. The article of warm-up apparel according to claim 1, wherein the dorsal panel further comprises a plurality of clear openings and the garment further comprises a second sheet consisting essentially of metallized polymeric film cut to define a rain flap having an anterior edge connected to the dorsal panel so that the flap overlays the clear openings.

8. The article of warm-up apparel according to claim 1, further comprising a second sheet consisting essentially of metallized polymeric film cut to define a pants pattern.

9. The article of warm-up apparel according to claim 1, further comprising a second sheet consisting essentially of metallized polymeric film cut to define a mitten pattern.

10. The article of warm-up apparel according to claim 1, further comprising a sleeve releasably connected to each of the garment sleeve openings.

11. The article of warm-up apparel according to claim 2, wherein the seams are releasable.

12. The article of warm-up apparel according to claim 2, wherein the lateral peripheral edges further define a plurality of parallel accordion folds, with panels, so that two parallel folds open and close the panels in opposite directions.

13. The article of warm-up apparel according to claim 3, further comprising a means for fastening the right and left panels in a closed position.

14. The article of warm-up apparel according to claim 3, wherein the sheet is further cut to define at least a pair of oppositely aligned closing ties to the right and left panels so that the right and left panels are tied in a jacket closing position.

15. The article of warm-up apparel according to claim 4, wherein the pattern is further cut to define at least one closing tie for securing a face opening side of the hood in a closed position.

16. The article of warm-up apparel according to claim 5, wherein the v-necked opening is further cut in a pattern defining at least one closing tie.

17. The article of warm-up apparel according to claim 8, further comprising a third sheet consisting essentially of metallized polymeric film cut to define a pattern comprising at least one closing tie for securing a waist opening tightly about the waist of an individual.

18. The article of warm-up apparel according to claim 9, wherein the sheet is further cut to define a pattern comprising at least one closing tie for securing the mitten to the arm of an individual.

19. The article of warm-up apparel according to claim 11, wherein the releasable seam is a heat seal.

20. The article of warm-up apparel according to claim 11, wherein the releasable seam is a hook and loop fastener.

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