

# Launching A 2 In 1 Allover (Radium/Non-PVC and Glitter Printed) Hoody Garment With Dual Side Garments

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**Abstract-** This project is a idea to launch a own product with the dual side wearable garment (i.e.) Reversible Garment for the Kids with Hood, Glitter and Radium Print for the garment attraction. A process for controllably registering two continuously moving layers of material is provided. One of the layers of material has a plurality of reference marks representing a plurality of separate and distinct components, and the other of the continuously moving layers has a respective plurality of different components thereon. The process controls the distance between reference marks to a selected distance, and controllably registers each reference mark to a respective component of the continuously moving second layer. An article is provided in which a graphic is controllably registered within a designated area there of effectiveness in the garments. Thus the development of Launching a 2 in 1 Allover (Radium/Non-PVC and Glitter printed) Hoody garment with dual Side garments

**Keywords-** All over Radium Print, Glitter Print, Hooded Garment, Kids Wear, Logo, Visiting Card and Colorfastness test

AREA: Textile Garment Printing

Specification: 100% Cotton Fabric

Fabric Specifications: Knitted (Single jersey) Fabric - Cotton

Knitted Fabric GSM: 180

Colour: Multicolor

Product Name: 2 in 1 Hoody Garment

Style Description: Double side Hooded Garment

Design: Logo and Visiting Card

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Brand: CBK FASHION Kidswear

## I. INTRODUCTION

### 1.1 Textile Printing

Textile printing is the process of applying colour to fabric in definite patterns or designs. In properly printed fabrics the colour is bonded with the fibre, so as to resist washing and friction. Textile printing is related to dyeing but in dyeing properly the whole fabric is uniformly covered with one colour, whereas in printing one or more colours are applied to it in certain parts only, and in sharply defined pattern.

In printing, wooden blocks, stencils, engraved plates, rollers, or silk-screens can be used to place colours on the fabric. Colorants used in printing contain dyes thickened to prevent the colour from spreading by capillary attraction beyond the limits of the pattern or design.

### 1.2 Roller, cylinder, or machine printing

This process was patented by Bell in 1785, fifteen years after his use of an engraved plate to print textiles. Bell's patent was for a machine to print six colours at once, but, probably owing to its incomplete development, it was not immediately successful. One colour could be printed with satisfactorily; the difficulty was to keep the six rollers in register with each other. This defect was overcome by Adam Parkinson of Manchester in 1785. That year, Bells machine with Parkinson's improvement was successfully employed by Messrs Livesey, Hargreaves and Company of Bamber Bridge, Preston, for the printing of calico in from two to six colours at a single operation

Roller printing was highly productive, 10,000 to 12,000 yards being commonly printed in one day of ten hours by a single-colour machine. It is capable of reproducing every style of design, ranging from the fine delicate lines of copperplate engraving to the small repeats and limited colours of the perrotine to the broadest effects of block printing with repeats from 1 in to 80 inches. It is precise, so each portion of an elaborate multicolour pattern can be fitted into its proper place without faulty joints at the points of repetition.

### 1.3 Radium printing

Radium is a chemical element with symbol Ra and atomic number 88. It is the sixth element in group 2 of the periodic table, also known as the alkaline earth metals. Pure radium is silvery-white, but it readily reacts with nitrogen (rather than oxygen) on exposure to air, forming a black surface layer of radium nitride ( $Ra_3N_2$ ). All isotopes of radium are highly radioactive, with the most stable isotope being radium-226, which has a half-life of 1600 years and decays into radon gas (specifically the isotope radon-222). When radium decays, ionizing radiation is a product, which can excite fluorescent chemicals and cause radio luminescence. Radium, in the form of radium chloride, was discovered by Marie and Pierre Curie in 1898. They extracted the radium compound from uraninite and published the discovery at the French Academy of Sciences five days later. Radium was isolated in its metallic state by Marie Curie and André-Louis Debierne through the electrolysis of radium chloride in 1911.<sup>[1]</sup>

### 1.4 Glitter printing

Glitter describes an assortment of small, colourful, reflective particles that comes in a variety of shapes. Glitter particles reflect light at different angles, causing the surface to sparkle or shimmer. Glitter is like confetti, sparkles, or sequins, but somewhat smaller. Since prehistoric times, glitter has been made and used as decoration, from many different materials including stones such as malachite,<sup>[1]</sup> galena,<sup>[2]</sup> and mica,<sup>[3]</sup> as well as insects<sup>[4]</sup> and glass. Modern glitter is usually manufactured from plastic.

### 1.5 Non-PVC Printing

Non- PVC Printing plastisol ink has been the ink of choice for decades, especially for those screen printing special effects. There are several reasons why plastisol gained the edge over water based inks in the garment printing industry, the most obvious is that plastisol does not dry in the screen. It can be left overnight, for days even, and will remain unchanged, whereas water based inks need specially-prepared screens and have to be cleaned constantly. Another reason is its versatility. You can change its texture, make it brighter or softer and make bright metallic colors that stay bright.

Where textile screen printing is concerned, having PVC resin and a range of plasticizers to choose from allows us to make some of the special effects inks that we are familiar with; high density, puffs, stretch and texturing inks, soft hand and gel

## II. TYPES OF PRINTS & INKS IN SCREEN PRINTING

### 2.1 General classification of printing inks

- Plastisols (Conventional)
- Water based inks

### 2.2 Water based inks:

- Non PVC Water based inks (for all grounds)
- Discharge Print (for dark ground)
- Pigment paste prints (for light ground)
- Specialties

### 2.3 Discharge inks available in market:

1. Conventional wet discharge inks
2. Dry discharge (normal)
3. Dry discharge (formaldehyde free)
4. Ready discharge with premixed activator
5. Oil based discharge (emulsion)
6. Indigo & Denim discharge
7. Plascharge (Plastisol & discharge combination)

### 2.4 Specialties:

1. Foil binders
2. Flock binders
3. Glitter binders
4. Crack whites & clear
5. Stretch whites & clear
6. Puff or foam
7. High density
8. Radium inks
9. UV sensitive inks
10. Heat sensitive pigments
11. Lacquer inks
12. Nylon inks
13. CMYK Process colours
14. Sublimation inks

### 2.5 Inks for Pigment printing

1. Binder
2. Thickener
3. Softener
4. Fixer
5. Ammonia & Urea

### 2.6 Non PVC Inks

- Water based non pvc (wider use)
- Oil based non pvc (Userfriendly & costly)

### III. OBJECTIVES

- To introduce the hoody garment reversible garments
- To analyze the different type of printing in one garment
- To launching the own product in the market
- To study the costing parameters for double side hoody garment
- To determine the color fastness withstand ability to wards radium print
- To produce double side printing in a garment with the Radium effect
- To enhance the kids product with following effects
- Allover printing styles such as radium/ non-pvc and glitter print hoody double side garment

### IV. CUSTOMIZATION

The sense of style and fashion varies from client to client and understanding the same, we offer them with a tailor made range of Knitted Fashion Garments that suits their needs and requirements. We have clients from various parts of the world, belonging to varied cultures with varied traditions, hence keeping that in mind we have developed our expertise in offering the products depending on the season, tastes and choice of the clients based all across the world.

The designers are in constant interaction with clients in order to comprehend their taste and accordingly fabricate our alluring range of fashion apparels. We strive to excel in our services to meet the clients' expectations by giving them a choice on the following parameters:

- Design
- Shape
- Sizes
- Fabric
- Patterns
- Color

### V. SAMPLE

#### 5.1 Kids double side hooded garment



#### 5.2 Design approval sheet

Designer: Harichandran

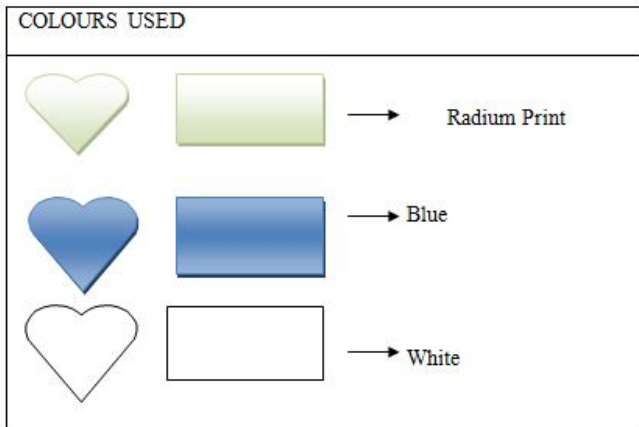
Brand: CBK FASHION Kidswear

Logo:



Category: Kids double side Hooded Garment and Size - 7 years to 8 years





5.5 Label

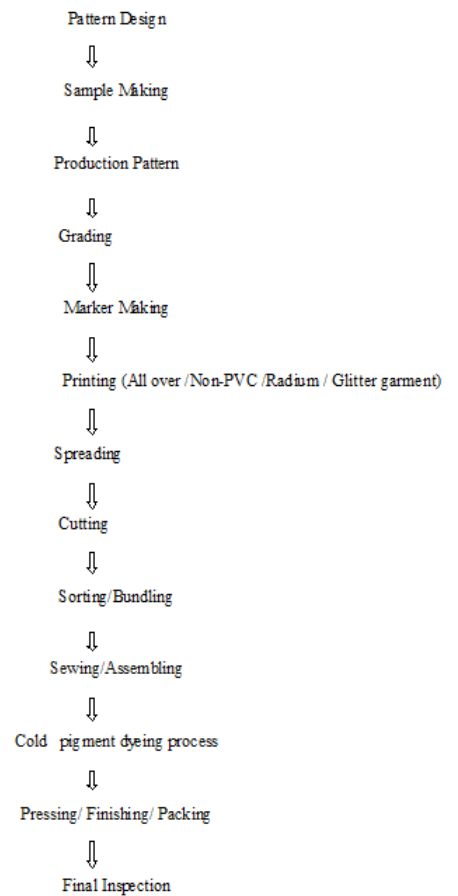


5.3 Measurement specification

NO	DESCRIPTION	7 TO 8 YEARS CM
1.	1/2 CHEST	46
2.	TOP NECK POINT TILL WAIST	40
3.	1/2 WAIST	40
4.	1/2 BOTTOM TOP OF RIB	42
5.	1/2 BOTTOM BOTTOM OF RIB	40
6.	NECK WIDTH, SEAM TO SEAM, INCL BOUNDING	18
7.	SHOULDER EXCL BOUNDING	7.5
8.	BACK NECK DROP, MEPS, FROM BASE LINE	1.5
9.	FRONT NECK DROP, MEAS TOP TO TOP	19.5
10.	ARMHOLE STRAIGHT	21
11.	TOP NECK POINT TO BOTTOM	62
12.	SHOULDER POINT TO BOTTOM	59.5
13.	SLEEVE LENGTH	52
14.	HOOD HEIGHT	32
15.	HOOD WIDTH	19
16.	BOTTOM RIB	6

5.6 Methods

The Launching a 2 in 1 All over (Radium/Non-PVC and Glitter printed) Hoody garment with dual Side garments for the 7 years to 8 years is produced by the following sequential method to get the full fledged garment. This garment is my own idea for launching a new style in the society. The Flow process of the product of the All over /Non-PVC /Radium / Glitter garment is as follows,



5.4 Visiting card



## VI. RESULTS AND DISCUSSION

### COLOUR FASTNESS REPORT

Size of Test Sample : Size: 0-3 months, 3 -6 months, 6 – 9months, 9 -12 months

Reagents : 5 gpl soap and 2 gpl soda ash

Colour : Blue, White, Glow Green

Apparatus Required : Laundrometer and grey scale

Temperature : 95+/-2oc.

Time : 30 minutes.

### RESULT

Rating for change in test specimen = 4-5.

Rating for staining in white fabric is = 3-4.

(i) Apparatus Required : Crock meter and grey scale

(ii)

Temperature : 95+/-2oc.

Time : 30 minutes.

### RESULT

Rating for change in test dry specimen = 4-5.

Rating for change in test Wet specimen = 3-4.

(iii)Apparatus Required : Saliva

Temperature : 95+/-2oc.

Time : 30 minutes.

### RESULT

35 LMBG 82.10-1

Part: 1

Resistance to artificial saliva: Not fast to saliva

Part: 2

Resistance to artificial saliva: Not fast to sweat.

## VII. CONCLUSIONS

Thus we conclude that the Printing is the oldest method of textile decoration. Color designs are produced on fabrics by printing with dyes in paste form or by positioning dyes on the fabric from especially designed machines. Garment printing is one of most important fields where various techniques are being adopted for value addition of the garment. Over the last decade, textile printing sector has redefined itself as the contemporary fashion demand area, but also as driver of the further growth of the textile industry because of consumers. One of the factors to catalyze this is the rapidly transforming consumers. Emerging and changing

consumer needs have forced companies to redefine their business approach. It is the diversity of ideas that is deciding the product lines. Explorations and experiments are continuously taking place and the real successful industry leaders are yet to emerge.

This sort of new techniques as The Launching a 2 in 1 Allover (Radium/Non-PVC and Glitter printed) Hoody garment with dual Side garments for the 7 years to 8 years is produced by the following sequential method to get the full fledged garment. This garment is my own idea for launching a new style in the society, materials and processes are being implemented to realize the consumer expectations and aspirations in much sophisticated manner. After 1980 a number of unconventional printing processes were popularized to make print fabric for fashionable wear. Some of the printing processes, especially metallic printing, glitter printing, puff printing, foil printing, plastisol printing are popularly used upon the garments with the good Colourfastness report.

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