

Measurements and Materials

Necessary Body Measurements

Types of Fabrics

Adhesives

Circumference Measurements

- Head
- Neck
- Base of Neck
- Over Chest/Bust
- Chest/Bust
- Ribcage
- Waist
- Abdomen – 3" below waist
- Hip – Fullest part 7"-9" below waist
- Armscye
- Bicep
- Wrist
- Thigh
- Above the knee
- Below the knee
- Calf
- Ankle

Horizontal Measurements

- Ear to Ear
- Shoulder Seam
- Across Shoulder – Front and Back
- Bust Point to Bust Point
- Waist – Front and Back
- Abdomen- Front and Back
- Hip – Front and Back

Vertical Measurements

- Forehead to Nape
- Center Neck to Waist – Front and Back
- ArmPit to Waist
- Shoulder to Bust Point
- Shoulder to Waist
- Outside Center Back to Shoulder
- Outside Shoulder to Elbow
- Outside Shoulder to Wrist
- Shoulder to Elbow Bent
- Inside Arm to Wrist
- Armpit to Waist
- Shoulder to bust point
- Shoulder to below bust
- Shoulder to waist
- Center Waist to Floor Front and Back
- Inseam
- Girth
- Crotch Depth
- Center Neck to Floor Front and Back

Measurement Forms

Example #1

FIGURE 4-3. Measurement blank #2.

ACTOR: _____ CHARACTER: _____ PLAY: _____ Date _____

Height: _____ Weight: _____ Blouse/Shirt: _____ Dress/Suit: _____

Skirt/Pants: _____ Bra: _____ Hat: _____ Tights: _____ Shoe: _____

Pierced Ears: yes no Allergies: _____

TORSO

NECK: High _____ Low _____

Center Neck Length _____

BUST/CHEST: _____

Overbust _____

Ribcage _____ Expanded _____

WAIST: _____

HIP: _____

SHOULDER SEAM: _____

ARMPIT TO WAIST: _____

ACROSS SHOULDERS: Front _____ Back _____

YOKE: Front _____ Back _____

CENTER NECK-WAIST: Front _____ Back _____

SHOULDER: to bust pt: _____

to below bust: _____

to waist: _____

POINT TO POINT: _____

BELOW WAIST

CENTER NECK-FLOOR: Front _____ Back _____

CENTER WAIST-FLOOR: Front _____ Back _____

WAIST to BELOW KNEE: _____

SHOULDER to BELOW KNEE: _____

INSEAM: _____

THIGH: _____

KNEE: above: _____ below: _____

CALF: _____

ANKLE: _____

GIRTH: Half _____ Full _____

CROTCH DEPTH: _____

SLEEVE

OUTSIDE ARM LENGTH: center back to shoulder: _____

to elbow: _____

to wrist: _____

INSIDE ARM LENGTH: to wrist: _____

ARMSCYE: _____

BICEP: _____

ELBOW (90 degrees): _____

FOREARM: _____

WRIST: _____

HAND: _____

GLOVE: _____

HEAD

CIRCUMFERENCE: _____

FOREHEAD TO NAPE: _____

EAR TO EAR: top: _____

back: _____

TEMPLE TO TEMPLE: back: _____

NAPE WIDTH: low: _____

NOTES:

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Example #2

FIGURE 4-4. Measurement blank #3.

MEASUREMENT FORM

Name _____ Phone _____ Date _____

Show _____ Character _____

HEIGHT _____ WEIGHT _____ SHOE _____ SUIT _____

SHIRT _____ PANTS _____ TIGHTS _____ HOSE _____

DRESS _____ BLOUSE _____ BRA _____ EARS PIERCED _____

HEAD _____

EAR to EAR _____

NAPE to FRONT _____

NECK BASE _____

SHOULDER WIDTH F _____ B _____

ARMSCYE WIDTH F _____ B _____

CHEST/BUST _____ BPT to BPT _____

UNDERBUST _____

WAIST _____

HIPS _____

INSEAM _____ K _____ A _____ F _____

OUTSEAM _____ K _____ A _____ F _____

THIGH _____

KNEE ABOVE _____ BELOW _____

CALF _____

ANKLE _____

NOTES: _____

MEASURED BY: _____

F-NECK TO WAIST _____ to FLOOR _____

B-NECK TO WAIST _____ to FLOOR _____

SH TO WAIST-F _____ B _____

SH TO BPT _____ SH SEAM _____

SHOULDER to ELBOW BENT _____

SHOULDER to WRIST BENT _____

SLEEVE LENGTH _____

UNDERARM to ELBOW _____

UNDERARM to WRIST _____

ARMSCYE _____

BICEP _____

FOREARM _____

WRIST _____

GLOVE _____

HALF GIRTH _____

FULL GIRTH _____

CROTCH DEPTH _____

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More Forms

Example #3

FIGURE 4-5. Measurement blank #4.

MALE MEASUREMENTS SHEET

NAME: _____ HEIGHT: _____ ALLERGIES: _____
 DATE: _____ WEIGHT: _____ GLOVE: _____
 PHONE/BOX: _____ HAT: _____ LT/RT HANDED: _____
 ROLES: _____ SHIRT: _____ HAIR COLOR: _____
 _____ PANTS: _____ PIERCED EARS: _____
 _____ SUITS: _____
 _____ TIGHTS: _____
 _____ SHOE: _____

TORSO

1. NECK: BASE _____ 6. FRONT NECK TO WAIST: _____
 MID _____ to FLOOR: _____
 2. ACR. SHOULDER: FRONT _____ 7. BACK NECK TO WAIST: _____
 BACK _____ to FLOOR: _____
 3. ACR. CHEST: FRONT _____ 8. SHOULDER TO WAIST: _____
 BACK _____ 9. UNDERARM TO WAIST: _____
 4. CHEST: REGULAR _____ 10. SHOULDER LENGTH: _____
 EXPANDED _____ 11. HIP: HIGH _____
 5. WAIST: _____ LOW _____

ARM

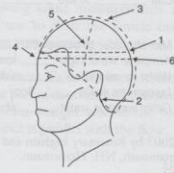
12a. BICEP: _____ 13. SHOULDER TO WRIST: _____
 b. FOREARM: _____ to ELBOW: _____
 c. WRIST: _____ 14. UNDERARM TO WRIST: _____
 to ELBOW: _____

LEG

15a. THIGH: _____ 17a. WAIST TO FLOOR (SIDE): _____
 b. BELOW KNEE: _____ b. TO BELOW KNEE: _____
 c. CALF: _____ c. TO MID-CALF: _____
 d. ANKLE: _____ 18. INSEAM TO FLOOR: _____
 16. HALF GIRTH: _____ 19. CROTCH DEPTH: _____

HEAD/WIG

1. _____ HEAD CIRCUMFERENCE
 2. _____ HAIRLINE COMPLETELY AROUND HEAD
 3. _____ OVER TOP OF HEAD-FOREHEAD TO NAPE
 4. _____ TEMPLE TO TEMPLE ACROSS FOREHEAD
 5. _____ EAR TO EAR OVER TOP OF HEAD
 6. _____ AROUND HEAD FROM TEMPLE TO TEMPLE



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Example #4

FIGURE 4-6. Measurement blank #5.

FEMALE MEASUREMENTS SHEET

Name _____ Date _____
 Character(s) _____ Phone _____

Head _____ Shirt _____ Dress _____ Bra _____
 Bust _____ Skirt/Pants _____ Tights _____ Ballet _____
 Waist _____ Hat _____ Glove _____ Shoe _____
 Hips _____ Piercings _____ Ring _____ Rt/Lt Handed _____
 Sh. to W _____ Tattoos _____
 W. to Floor _____ Hair Swatch Info: _____
 Height _____ Other Hair Notes: _____
 Weight _____ Posture: _____
 Allergies: _____

HEAD

Around _____ Ear to Ear _____ Forehead to Nape _____ Hairline Note _____

TORSO

Around: _____ Neck: mid _____ lower _____ Above bust _____ Bust _____
 Below bust _____ Waist: High (natural) _____ Shoulder seam: _____
 low _____ " down from H. Waist _____ Chest break: F _____ B _____
 Hips: fullest point _____ " down from H. Waist _____ Bust SS to SS: F _____ B _____
 Belly: _____ " down from H. Waist _____ B point to B point _____
 Stride: _____ (around upper thighs with regular step taken) _____ Belly SS to SS: F _____ B _____

ARMS

Around: _____ Length: _____
 Armscye _____ Bicep (flexed) _____ (bent) CB to sh. seam _____ elbow _____
 elbow (bent) _____ Forearm _____ to wrist _____
 wrist _____ (straight) pit to wrist _____
 hand (over hand w/thumb cupped in) _____ to fingertip _____

LEGS

Around: _____
 Thighs: upper _____ lower _____ above knee _____ below knee _____
 Calf _____ ankle _____ Foot through instep _____

LENGTHWISE MEASUREMENTS

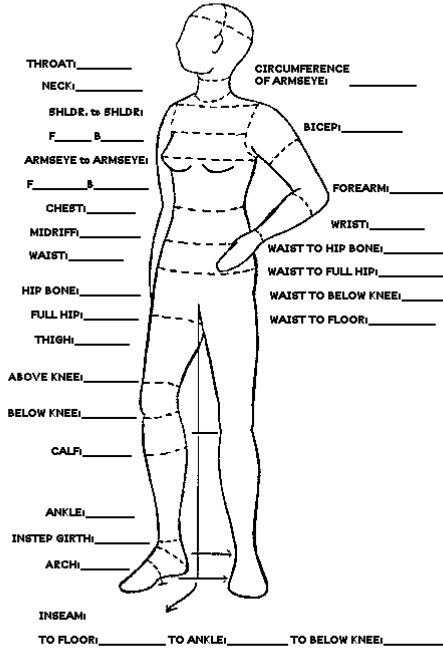
Mid-shoulder to bust point _____ h. waist, ctr. F _____ B _____; princess line F _____ B _____
 Armpit to waist high _____ low _____
 Waist to: mid-knee _____ mid-calf _____ ankle _____ floor F _____ ctr. B _____ Heels? _____
 Inseam to: ankle _____ floor _____ Crotch Depth from h. waist _____ low waist _____
 Girth: waist to waist _____ shoulder to shoulder _____ misc: _____

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More Forms

Example #5

Female Measurements

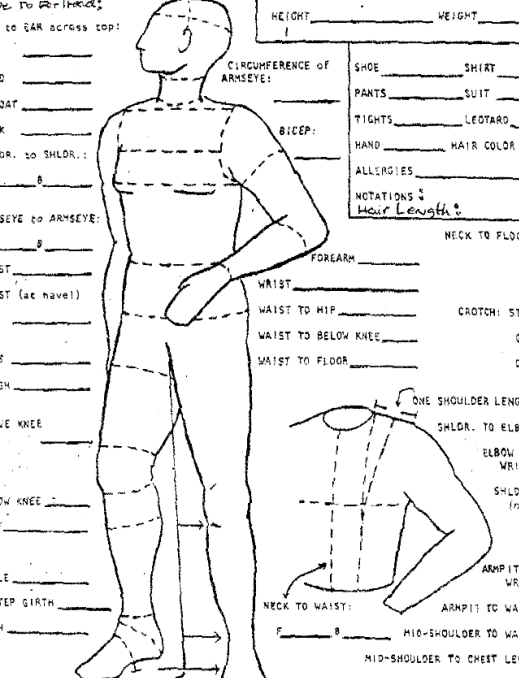


THROAT: _____
 NECK: _____
 SHLDR. to SHLDR: _____
 F. _____ B. _____
 ARMSEYE to ARMSEYE: _____
 F. _____ B. _____
 CHEST: _____
 MIDRIFT: _____
 WAIST: _____
 HIP BONE: _____
 FULL HIP: _____
 THIGH: _____
 ABOVE KNEE: _____
 BELOW KNEE: _____
 CALF: _____
 ANKLE: _____
 INSTEP GIRTH: _____
 ARCH: _____
 INSEAM: _____
 TO FLOOR: _____ TO ANKLE: _____ TO BELOW KNEE: _____

CIRCUMFERENCE OF ARMSEYE: _____
 BICEP: _____
 FOREARM: _____
 WRIST: _____
 WAIST TO HIP BONE: _____
 WAIST TO FULL HIP: _____
 WAIST TO BELOW KNEE: _____
 WAIST TO FLOOR: _____

Example #6

Male Measurements



NAME: _____
 CHARACTER/SHOW: _____
 PHONE: _____ DATE: _____
 HEIGHT: _____ WEIGHT: _____

HAIR LENGTH: _____

HEAD: _____
 THROAT: _____
 NECK: _____
 SHLDR. to SHLDR.: _____
 F. _____ B. _____
 ARMSEYE to ARMSEYE: _____
 F. _____ B. _____
 CHEST: _____
 WAIST (at navel): _____
 HIPS: _____
 THIGH: _____
 ABOVE KNEE: _____
 BELOW KNEE: _____
 CALF: _____
 ANKLE: _____
 INSTEP GIRTH: _____
 ARCH: _____

CIRCUMFERENCE OF ARMSEYE: _____
 BICEP: _____
 FOREARM: _____
 WRIST: _____
 WAIST TO HIP: _____
 WAIST TO BELOW KNEE: _____
 WAIST TO FLOOR: _____

SHOE: _____ SHIRT: _____
 PANTS: _____ SUIT: _____
 TIGHTS: _____ LEOTARD: _____
 HAND: _____ HAIR COLOR: _____
 ALLERGIES: _____

NECK TO FLOOR: F. _____ S. _____
 SIDE: _____
 CROTCH: STRIDE: _____
 GIRTH: _____
 DEPTH: _____

ONE SHOULDER LENGTH: _____
 SHLDR. TO ELBOW: _____
 ELBOW TO WRIST: _____
 SHLDR. TO (not to) WRIST: _____
 ARM PIT TO WRIST: _____
 NECK TO WAIST: F. _____ B. _____
 MID-SHOULDER TO WAIST: _____
 MID-SHOULDER TO CHEST LEVEL: _____
 TOP OF SHLDR. LINE TO WAIST: F. _____ B. _____

Measurement Locations

General

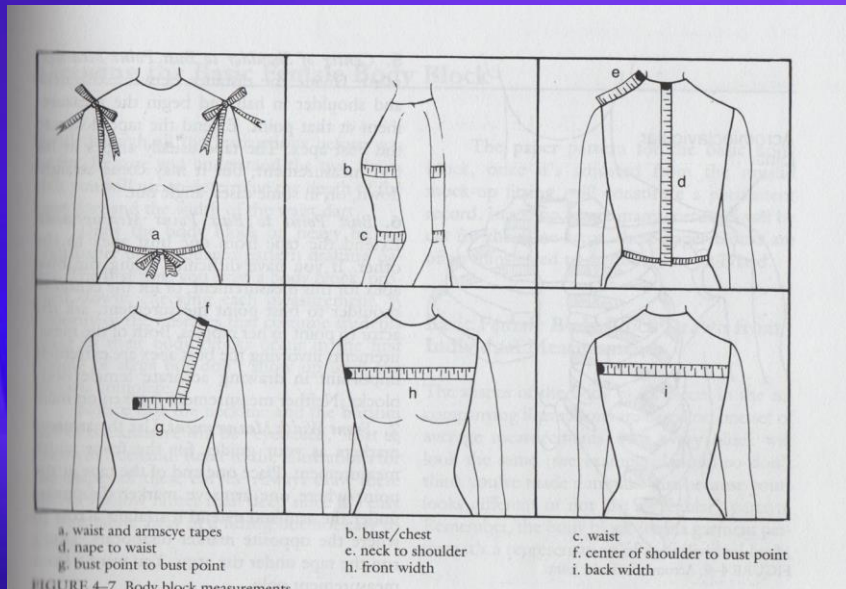


FIGURE 4-7 Body block measurements

Horizontal

FORM MEASUREMENTS AND FIGURE ANALYSIS 33

Taking Measurements

- Place the metal tip end of the tape measure at one reference point and extend to the next reference point when taking measurements.
- Record measurements on the Model Measurement (Form or Chart or the Personal Measurement Chart found at the back of the text).
- Numbers in parentheses correspond with those on the chart.
- Arm measurements are taken from center lines to the side seam.
- The same half of the front and back of the form is measured.

HORIZONTAL BALANCE LINE (HBL)

Figures 1, 2, and 3

- Measure up from the floor to the pin mark (X) at center front (Figure 1).
- Use this measurement to measure up from the floor and pin mark center back and side seams. Pin mark at princess lines. Recheck measurements (Figures 1 and 3).
- Draw a line around the hip touching each of the pin marks, or use adhesive tape to mark the hipline. The standard hip depth is 6 to 7 inches down from the center front waist for juniors and petites, 8 to 9 inches down for missy size.

Personal fit. Follow the instructions very carefully and double check. If incorrect, the hemline of the skirt will not hang parallel with the floor.

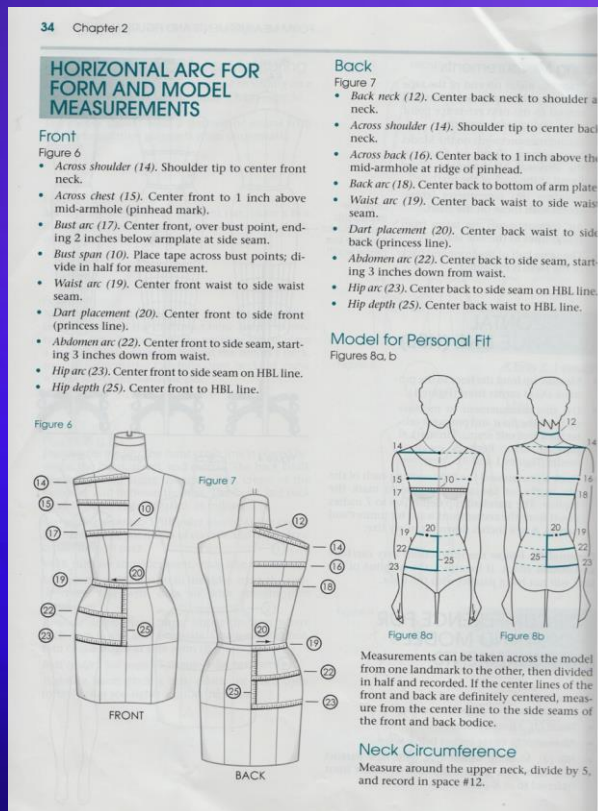
CIRCUMFERENCE FOR FORM AND MODEL MEASUREMENTS

Figures 4 and 5

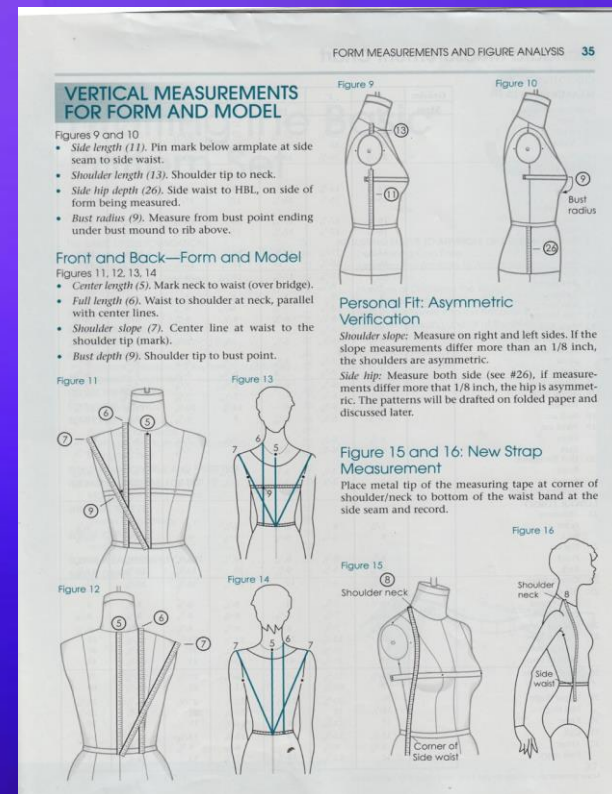
- Bust (1). Across bust points and back.
- Waist (2). Around waist.
- Abdomen (3). Three inches below waist.
- Hip (4). Measure widest area with tape parallel with floor. Pin to mark hip level at center front (referred to as X-point).

Measurement Locations

Horizontal



Vertical



Creation of Fabric

- Fiber
- Yarn
- Fabric

Types of Fiber

- Natural or Organic

- **Linen**- Stalks of Flax Plant
- **Cotton**-Blossom of Plant
- **Bamboo**- Stalks of Plant
- **Hemp**- Stalks of Plant
- **Wool**- Sheep
- **Silk**- Cocoon of the Bombyx Mori Moth

Synthetic or Inorganic

Rayon-Wood Pulp and Chemicals

Acetate- Chemicals

Nylon- Chemicals

Polyester- Chemicals

Acrylics-Chemicals

Spandex- Chemicals

Metallic- Metal or metal coated plastic fiber

Polypropylene- Chemicals

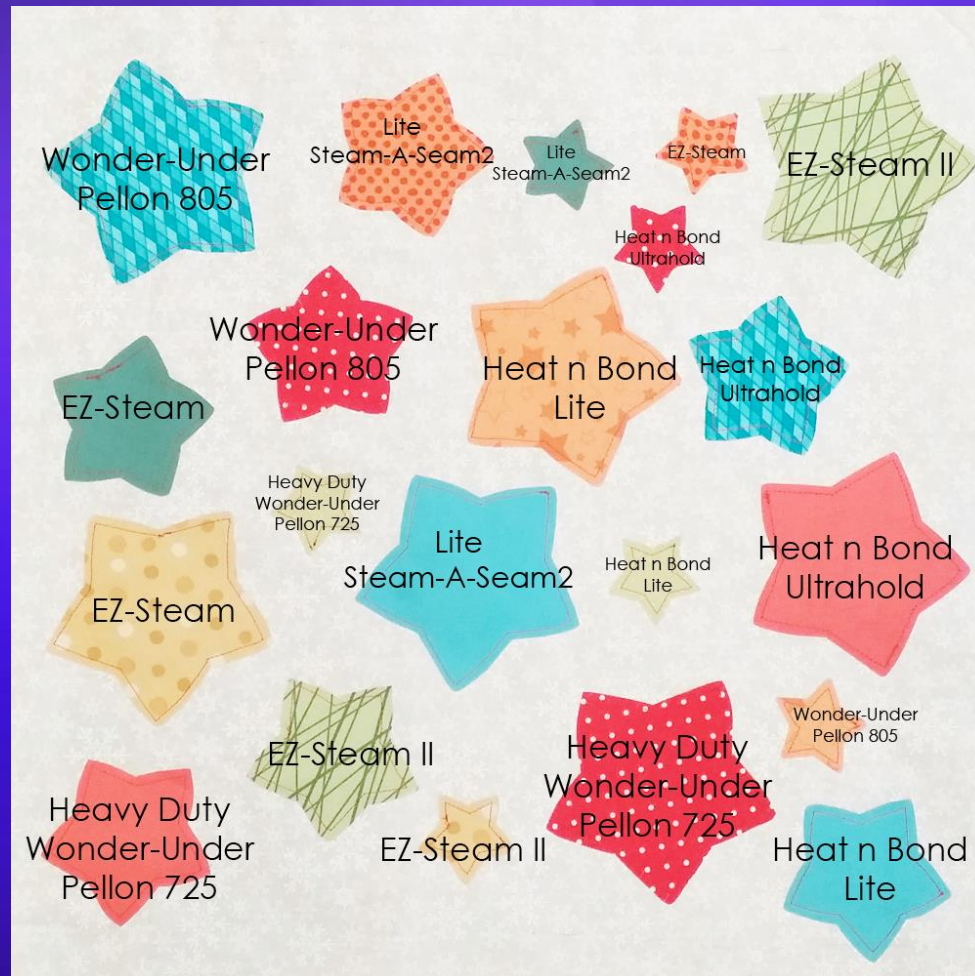
Types of Fabric

- **Woven**- Yarns that are interlocked at right angles
- **Knitted**-Yarns that are intelocking loops.
- **Felted**- Fibers that are bonded together with moisture, heat and pressure
- **Knotted**- Yarns that are connecte with knots

Adhesives

- <http://www.beaconadhesives.com/cchart.htm>
!

Fusible Web



Fusible Web Brand Comparisons

| Product Name | Ease of Use | Amount of Fraying (1 is no fraying, 10 is a lot of fraying) | Texture Change (1 is not stiff, 10 very stiff)* |
|-------------------------|--|---|---|
| EZ-Steam | Good | 8 | 5 |
| EZ-Steam II | Frustrating to get the paper off before the final fuse | 8 | 6 |
| Wonder Under | Good | 7 | 4 |
| Heavy Duty Wonder Under | Web fell off of the paper before I ironed | 4 | 6 |
| Heat n Bond Lite | Good | 2 | 5 |
| Heat n Bond Ultra Hold | Good | 1 | 7 |
| Lite Steam-a-Seam II | Good | 8 | 6 |

Sources

- <http://www.beaconadhesives.com/cchart.html>
- <https://sweetbriarsisters.com/blog/heres-best-fusible-web/>
- Joseph-Armstrong Helen Joseph Armstrong (Author) › Visit Amazon's Helen Joseph Armstrong Page Find all the books, read about the author, and more. , Helen. “Patternmaking for Fashion Design (3rd Edition) 3rd Edition.” *Patternmaking for Fashion Design (3rd Edition): Helen Joseph Armstrong: 9780321034236: Amazon.com: Books*, Prentice Hall, www.amazon.com/Patternmaking-Fashion-Design-Joseph-Armstrong/dp/0321034236. pgs.33-35
- Ingham (Author) › Visit Amazon's Rosemary Ingham Page Find all the books, read about the author, and more. See search results for this author , Rosemary, and Liz Covey. “The Costume Technician's Handbook 3/e (9780325004778): Rosemary Ingham, Liz Covey: Books.” *Amazon.com: The Costume Technician's Handbook 3/e (9780325004778): Rosemary Ingham, Liz Covey: Books*, Heinemann, www.amazon.com/Costume-Technicians-Handbook-3/dp/0325004773. pgs.102-107