

MIL-STD-1491
3 December 1971

MILITARY STANDARD
GLOSSARY OF
KNITTING IMPERFECTIONS



FSC 83GP

MIL-STD-1491
3 December 1971

DEPARTMENT OF DEFENSE

WASHINGTON, D. C. 20301

Glossary of Knitting Imperfections

MIL-STD-1491

1. This standard has been approved by the Department of Defense and is mandatory for use by the Department of the Army, Navy and Air Force, effective 3 December 1971.
2. Recommended corrections, additions or deletions should be addressed to U. S. Army Natick Laboratories (GL), Natick, Massachusetts 01760.

MIL-STD-1491
3 December 1971

FOREWORD

1. The purpose of the standard is to furnish a common vocabulary for use by Government procurement agencies and their contractors. It is designed to fill a need for a glossary of knitting imperfections for all knitted fabrics and items manufactured from knitted fabrics.
2. Defects are likely to occur from many causes such as variation in the quality of basic materials and variation in manufacturing processes and finishing operations. This standard, however, does not attempt to pin down the cause of the defects but merely to identify the defect in the fabric or the finished product.
3. Contributions by the knitting Industry are acknowledged as are comments submitted by agencies that reviewed the draft of the standard. Users are requested to submit to the preparing activity comments, new terms and definitions that are considered applicable to this standard.

1. SCOPE

1.1 General. This standard establishes definitions for the words, terms and expressions for defects peculiar to the general field of knitting.

1.2 Application. It is anticipated that this standard will serve as a source of defects to be referenced in section 4 of knitting specifications.

1.2.1 This standard is not intended to take the place of a particular inspection procedure aid which may be provided for inspectors to verify conformance with a particular specification. The quality requirements specified in the basic specification are governing.

2. GLOSSARY OF TERMS

2.1 Introduction. Defect terms are arranged alphabetically. Synonymous and similar terms are cross referenced, (See ".....").

2.2 Definitions.

Abrasion mark	- A place where the surface of the fabric has been damaged by friction.
	- Bands, streaks or bars in the fabric characterized by texture, tension, color, luster or shrinkage differences. These are usually horizontal in weft knitting and vertical in warp knitting.
Birdseye	- When considered a defect in a knitted fabric, it is usually caused by unintentional tucking (see "Tucking defect'*).
Boardy	- An unusually harsh, stiff or hard hand.
Bowing	- A horizontal arc across the width of the fabric where colored or raised rib structures have been stretched out of a straight line configuration.

MIL-STD-1491

Broken filaments	- (See "whiskering").
Broken yarn	- Self-descriptive.
Burrs	- Seed fragments with bristles projecting from them.
clip out	- (See "Selvage defect").
Cockled fabric	- Distorted, shriveled, wavy, ridgy fabric or fabric that will not lie flat when laid on the cutting table.
Crack marks	- Open random streaks in any direction extending partly or entirely along or across the fabric.
Crease	- A set line or mark usually made by folding and/or pressing.
Cut fabric	- A slit made with a sharp edged object.
Dirt	- Any unclean or soiling matter such as mud, dust, trash, etc.
Drop ply	- A yarn containing fewer plies than normally used in the fabric.
Drop stitch	- An unknitted stitch.
Dropped stitches	- Recurrent unknitted stitches in one or more wales within a length of a knitted fabric (see "Run").
Dye stain	- An area of shade difference or dye discoloration in the fabric.
Dye streak	- A dye stain extending as an irregular stripe in the fabric.
Float	- A place in the fabric where a yarn extends unbound over the yarns with which it should be interlaced. (Frequently referred to as miss-knit).

MIL-STD-1491

Foreign matter	- Waste, fly or extraneous material that has been knit into the fabric or spun into the yarn.
Fuzzy	- A fabric condition characterized by excessive hairiness.
Heavy yarn	- Yarn of a noticeably larger diameter than normally being used in the fabric.
Hole	- A place in the fabric where two or more contiguous yarns have been ruptured.
Horizontal streaks	- (See "Barre").
Kink	- A place in the fabric where a short length of yarn has doubled on itself.
Knot	- Self-descriptive.
Ladder	- (See "Run").
Lint	- See ("Foreign Matter").
Loose course	- A row of loops in the width or crosswise direction that is larger, looser or longer than the body material.
Loose yarn	- Yarn that has been knit-in under insufficient tension.
Luster difference	- Self-descriptive (see "Barre", "Mixed yarn").
Mend	- Damaged, defaced or torn fabric that has been fixed or repaired.
Miss-knit	- Wrong formation or description of the normal knitting pattern (see "Float").

MIL-STD-1491

Missing yarn	- Self-descriptive.
Mixed yarn	- Yarn which differs from that normally being used in fabric, such as wrong twist, wrong number of plies, wrong color or mixed yarn lots.
Mottled	- A blotchy or spotty appearance of the fabric.
Needle line	- A vertical line in fabric following one wale line (see "Vertical lines").
Neps	- All definite fiber tangles.
Objectionable odor	- Self-descriptive.
Off shade	- Not within established tolerance; shaded side to side, side to center or end to end.
Oil spots or streaks	- Self-descriptive.
Pile character not as specified	- Self-descriptive.
Pin marks	- Abnormally enlarged pinholes, tears, or shift marks along the edge of the fabric.
Press off	- Condition arising when fabric fails to knit and either falls off the machine or results in a large hole in the fabric.
Puckered	- (See "Cockled fabric").
Ridgy	- (See "Cockled fabric").
Rings	- Mottled or cloudy areas that run around a stocking or circular knitted fabrics.
Run	- A series of dropped stitches (see "Dropped stitches").

MIL-STD-1491

Scalloped edges	- Abrupt narrow places along the edges of the fabric.
Selvage defect	- Selvage that is one or more of the following: curled, folded, ridgy, rolled, slack, tight, puckered, scalloped, wavy stringy, beaded, loopy, cut or torn.
Shading (cover)	- Horizontal or longitudinal areas of varying shade depths occurring in the fabric resulting from different covering powers than the rest of the piece.
Shedding	- An excessive amount of loose fibers released from a fabric.
Skewing	- Similar to "bowing", but the colored Yarn line or raised effect is a straight line but not perpendicular to the selvage.
Sleazy	- Term used to describe under constructed characteristic of knit goods (flimsy, lacking in body).
Slub or slug	- An abruptly thickend place in yarn, or a bunch of lint entangled in the yarn or fabric.
Smash	- A damaged area where the fabric has been ruptured by the breaking of a group of yarns.
Snag	- A yarn or yarns pulled out of place, usually by a sharp point or projection.
Speck	- A small particle of foreign substance.
Split stitch	- One end of yarn of a stitch is knit and the other end dropped.

MIL-STD-1491

Spot or stain	- An area of discoloration on or in the fabric.
Stop mark	- A horizontal fabric streak caused by a tension difference when the knitting machine is stopped.
Streak	- A stain extending as in irregular stripe in the fabric.
Tear	- Self-descriptive.
Thick place	- An area of fabric that is thicker than normal.
Thin place	- An area of fabric that is thinner than normal.
Thin yarn	- A yarn smaller in diameter than normally being used in the fabric.
Throw out	- In plaited fabric the back yarn comes to the front.
Tiger stripes	- (See "Barre").
Tight yarn	- A yarn knit under abnormally high tension.
Tucking defect	- One or more unwanted tuck loops in knitted fabric.
Twist (yarn) loose or tight	- Self-descriptive.
Uneven knitting	- Self-descriptive.
Uneven napping	- Fabric in which the nap is not raised Uniformly.
Uneven shearing	- Self-descriptive.

MIL-STD-1491

- | | |
|-----------------|---|
| Vertical lines | - Lengthwise marks occurring in knitted fabric. Sometimes called doglines or needle lines. |
| Washboards | - A ridgy effect on the fabric which can be caused by uneven tension between feeds or by variations of yarn denier. |
| Weak spot | - Places in the fabric which have been abnormally weakened during any part of the operations through which it has passed. A latent defect that is not normally observable in normal inspection. |
| Whispering | - Breaking or fraying of the individual filaments of the yarn |
| Width variation | - Self-descriptive. |
| Yarn variation | - Yarn irregularity of weight per unit length- Usually either a course or wale is noticeably thicker or thinner than adjacent yarns, . |
- Short term - 1 to 10 times the fiber length.
- Medium term - 10 to 100 times the fiber length
- Long term - 100 to 1000 (or more) times the fiber length

Custodians:

Army - GL
 Navy - SA
 Air Force - 11

Preparing activity:

Army - GL
 Project No. 83GP-0332

Review activities:

Navy - AS
 Air Force - 45, 82

User activities:

Army - AV
 Navy -MC, OS, SH, YD

