

# Standards for products made of fiber from North American Paco-Vicuna™

These are the guidelines to create the best quality products out of North American Paco-Vicuna™ fiber, often referred to as PV, and to help customers find the same, or very similar, high quality of yarns from the different member farms.

The members of PVA shear their animals every 1 or 2 years. Each fleece is sampled and sent for lab testing to be analyzed for different fiber characteristics, like the micron count and curvature. This data is used for selecting the correct fiber for specific products, becomes part of our EPD program with CSU, and the members' breeding decisions.

## **De-hairing**

North American Paco-Vicunas™ have very strong guard hairs that are coarse, straight, and most of them are extending well beyond the fine fibers of the fleece.

All PV fiber has to be de-haired properly, or it will be prickly. With the currently available options of mills in the US, it is hard to guarantee every batch adheres to the same level of being de-haired without lab testing. At the moment there is no international standard of the amount of guard hair being present in products of wool and animal fibers, except cashmere. The PVA will strive to establish that in the future for products of PV.

As with any fiber being processed, the more uniformity you have, the better “hand” as well as quality the product will have. The two main aspects where to look for uniformity are fineness and staple length. Curvature, which is considered the measurement of memory, will be crucial in products that need to keep their shape.

## **Grade, fineness measured in microns.**

The lower the micron count, the finer it is, and the better it will feel next to your skin. Though North American Paco-Vicunas™ are very uniform within their individual fleeces, there are still some variation in micron and staple length in each fleece. Each fleece has to be skirted, where coarser and often shorter areas are set aside and used for a different product, or thrown away due to too much guard hairs or excessive impurities.

Properly de-haired, all “Standard” and “Premium” PV fiber is soft enough to be worn next to your skin. When combining fleeces for larger batches or to create variation of color, keep the micron count within a grade, or it has to be considered to be of the highest grade present. You will likely have a nicer product that is made with a slightly coarser grade that is very uniform, than a wide spread of the micron count of finer grades. The guard hairs is an extreme example,

but our skin is able to notice rather subtle differences, which is the basis for textile producers creating a grading system.

Obviously, when the micron is very fine, the fiber will not withstand a lot of abrasion. Choose the low microns for next-to-skin and low wear and tear items. “Standard” grade PV fiber, as mentioned above, is still soft enough to enjoy it next to your skin, but also withstands slightly more wear and tear.

The way PVA defines the grades:

“Premium” PV grades

000 11-12.99 microns

00 13-14.99 microns

0 15-16.99 microns

“Standard” PV grades

1 17-19.99 Microns

2 20-22.99 microns

PV

3 23 microns and over

### **Staple, the length (and strength) of the fibers.**

Uniformity in the micron count creates the soft and smooth “hand” of the product. Uniformity of staple length helps to create a stronger yarn, as shorter fibers tend to be the ones that migrate and shed, or pill. Longer and uniform staple will have the least problem with this. We suggest not using shorter staple than 1.5” for yarns, as it takes special equipment or a skilled hand spinner to make it into a usable yarn. Even so, it is a yarn that is not suited for products that experience a fair amount of abrasion. If you process at a mill, each mill has different requirements based on their equipment set-up and skill set. As an example, for lace weight yarns most mills ask for a minimum of 3” staple.

When a fleece is evaluated to determine its use, it is also imperative to check for possible fiber break or tenderness. No matter how attentive a farmer is in their animal husbandry, sometimes a fleece will have weakness in a specific spot, or all along the staple. Pull a small lock in the size of a pencil, and pull it from both ends with the force you would do to pull somebody’s hair to cause pain. A fiber break is usually at the same spot on the staple throughout the fleece. Tenderness usually occurs along the entire staple, not to be confused with lack of strength in super low micron count, or tender cria tips. The fiber that is on the animal when born has been exposed to amniotic fluid, which makes the tips on a cria fleece tender. This portion will likely break off, some during processing and the rest causing pilling and weak spots in the finished product. Farmers producing fiber for commercial high-end use do “cria tipping”, where the crias fleece is shorn 2-4 weeks after birth. Care has to be taken to make sure the dam does not reject the cria in that process. Some manufacturers will reject cria

fleeces due to tender tips and fleeces that are tender, or have fiber break, as the end product is inferior. They can also clog up the machines or will break during the spinning process, which makes some mills reject them.

Hand processing is much gentler on the fiber. A hand spinner or textile artist may be willing to go through the extra effort, depending on how severe the issue is and what project they have in mind.

Felting is a good option for fiber that is too short to spin, or has a fiber break.

The basic rule of thumb is: "The shorter the staple, the less of a variation can be present to create a durable yarn." Always check with the mill beforehand what their parameters are for the yarn that you want to have spun, and the end product you want to create.

Below is a suggested way of combining staple lengths for PV.

(1-1.5" For special equipment or skilled hand spinner)

1.5-3" Traditional "woolen" or "semi worsted" spun yarns.

2.5-4"+ Lace weight, though mills may ask for 3" minimum.

### **Blending**

PV fiber has more memory than alpaca and does not need to be blended with sheep's wool or other high memory fiber to keep a garment from sagging. If you are blending it for other reasons, keep in mind both the micron and staple guide lines as well as the character of the other fiber(s). In situations of a larger than suggested variance of staple, set the twist for the shorter fiber to minimize the shedding and pilling. Different types of fibers have different strengths. Silk, for example, is very strong and according to some experts, when blended, it will eventually cut through softer fibers from the rubbing against each other while wearing it. This would shorten the time before an item starts to shed and pill.

### **Labeling your products**

Yarn, roving, bats and products made of PV, and other animal fibers, are covered by the Labeling Requirements of Textile and Wool Acts enforced by Federal Trade Commission, to state fiber content, country of origin, manufacturer or other business responsible for marketing or handling them. Clothing requires care labels as well.

#### Grade:

Paco-Vicuna Association (PVA) asks its members to include grade and/or micron on their labels, stating the highest grade present.

Suggested is to include staple length.

#### Fiber content:

To label any fiber as North American Paco-Vicuna™, it has to come from a North American Paco-Vicuna™ animal owned by a member of the PVA. At this point, only animals whose

genetics are tracked and registered with the Paco-Vicuna Registry are considered to be North American Paco-Vicunas™. The trademark is reserved for members of the Paco-Vicuna Association only, to guarantee the integrity and quality.

All products have to display fiber content on packaging, or tag. Example:  
100% North American Paco-Vicuna™

Or state the percentage by weight of any blend:  
80% North American Paco-Vicuna™  
15% wool  
5% silk

Country of Origin:

U.S.

“Made in U.S.A.” can only be stated if all fiber is produced in the US, and the entire manufacturing process has taken place within the US, according to the Textile and Wool Acts.

When marketing fiber and products from your own registered animals, a statement of being a member of PVA is encouraged.