

# LEATHER CARE



by E Don Smith

**L**EATHER CAN BE anything from a fashion statement to serious safety equipment that provides essential protection in the event of a spill. And despite the wide array of synthetic materials that have been developed for protective gear, racing-weight leather is still the most abrasion resistant material you can wear to protect your own hide from injury. And in addition to its durability, leather is also one of the most luxurious materials that Mother Nature has given to us. The weight, the feel and the aroma of leather make it uniquely satisfying to wear.

Whether you have a fancy one-piece racing suit or a combination of jacket, boots, pants and gloves, leather is also expensive and worth taking care of so as to extend its life as long as possible.

## What is Leather Anyway?

Before we talk about how to care for leather, we first need to understand exactly what it is. The term leather is commonly used as a broad category of processed animal hides. But there are actually many types of leathers from many different sources. Below is a common list of these materials

and their origins. Each has advantages and disadvantages related to its use in motorcycle garments.

*Buffalo hide= Skin from buffalo or water buffalo*

*Buckskin= Deer and elk skin*

*Calfskin= Skin from immature cattle*

*Cowhide= Skin from mature female bovines*

*Goatskin= Skin from mature goats*

*Horsehide= Skin from a horse*

*Lambskin= Skin from lambs*

*Pigskin= Skin from pigs or hogs*

*Sheepskin= Skin from a mature sheep*

In addition to the various types, there are just as many ways to treat and finish these hides, which will have an effect on the final properties of the product. See Fred Rau's article in the October '03 MCN "How To Buy A Motorcycle Jacket," for a more detailed explanation of these processing methods.

## What the Experts Say

Our research has revealed, much to our surprise, that many of the products sold for leather care on the market today are not at all ideal. However, their brochures sound

convincing, and as uninformed consumers we tend to buy the products without question. So don't be surprised if what we are about to tell you goes against almost everything you have ever heard or read about leather care. Brace yourself to learn some new tricks.

If you look at the typical car care center or furniture dealer that sells leather care products, you are likely to be as mystified as we were at the dizzying array of creams and potions that are sold to clean and care for your leather garments. After interviewing many people in the motorcycle garment business, and often receiving a different opinion from each of them, we decided we needed an unbiased source of information. So we turned to the Leather Apparel Association (LAA), an industry group that was founded by 40 retailers, tanners, producers and cleaners in 1990. They currently have more than 100 members, and one of their goals is to provide an authoritative source of information related to leather and its use and care. They also maintain an approved list of leather cleaners throughout the United States, which can be found on their website at [www.leatherassociation.com](http://www.leatherassociation.com).

## Product Comparison

The LAA has the following tips related to the care and use of leather:

1. Hang leather on wide or padded hangers to maintain its shape.
2. Never store leather in plastic or other non-breathable covers.
3. Allow wet leather to air dry naturally and away from heat sources.
4. In winter, promptly remove salts with a sponge and clean water, then air dry.
5. Avoid storing leather in extremely damp or dry areas.
6. Do not use waxes, silicone, or anything that prevents leather from breathing.
7. Wrinkles will usually hang out. If ironing is done, set the iron on the rayon setting and use heavy brown paper between the iron and leather. Move quickly to prevent overheating and shine.
8. Avoid spraying perfume or hairspray while wearing leather.

Custom motorcycle leather producer Z Custom Leathers (www.zcustom.com, 714-890-5721) gave us this additional caution: "Without regular cleaning and conditioning, perspiration will draw the moisture right out of the leather, turn it hard, and eventually make it tear like paper. Once that occurs, we know of no product that will bring the leather back."

Noted leather repair expert Bill Burns at Barnacle Bill's Racing Leathers (www.racingleather.com, 859-336-7375) also cautioned us that that sweat was one of the biggest factors to cause premature failure of leather. For an inexpensive care routine for leather, Bill advises simply cleaning with a mild soap and water solution (not detergent), followed by a treatment with a good hand lotion containing lanolin. Since leather is essentially skin, he feels that should treat it like skin with the use of moisturizers suitable for our own bodies.

Note that all of these experts are not advising you to wax, dress, coat, seal, or do anything drastic to your leather. As every one of our experts observed, leather is skin, and after asking a number of human skin care experts, we could not find one woman that uses Vaseline, mineral oil, or any other sealer, wax, or dressing on her face. These women do, however, use moisturizers. But they are the kind that allows skin to breathe. However, we tested many products which were effectively sealers, that in one way or another clog the pores of the leather like Vaseline would do to your face.

Just like many of you, we have often relied on products like saddle soap for the cleaning and preservation of leather. After researching the topic, we now find that some saddle soaps contain very high-pH materials that can actually strip away the needed oils in the leather, shortening its life instead of lengthening it. Be very careful when you

select your cleaning product to ensure that it is pH balanced. Some cleaners are labeled as such, making your decision easier.

### Product Testing

Our product evaluations normally use either an existing test method or one we develop on our own, in order to compare the performance of various products. We do this so that we can give you useful and meaningful data to make your decisions. For this test, we ordered an entire side of full grain black leather from Barnacle Bill's. Then we devised a test method where we would take identical samples of leather measuring approximately 4" x 8", with half of the sample treated with various conditioners and half left as a control. We then exposed the samples to repeated wet and dry cycles as well as full outdoor exposure.

We assumed that after a few months of this harsh exposure the differences would become apparent. We have good news and bad news as a result. The bad news is that after seven months of exposure, we were not able to discern any meaningful differences in the treated vs. untreated products. The good news for those of you that are not dedicated to leather care is that even plain, untreated leather will last a long time. We discussed this with Mansoor Shafi at RoadGear (www.roadgear.com, 800-854-4327) and Paul Golde at Intersport Fashions West (www.intersportfashions.com, 800-495-5042), and they both confirmed that it could take years of this kind of harsh exposure before you could measure meaningful differences. It seems that leather processing is so good now, compared to the past, that repetitive cleaning and conditioning routines are not quite as important as they once were.

We plan to continue this test for another year or so to see if we are then able to tell any differences. We have also added a salt spray to the exposure conditions in hopes that it will accelerate the degradation. Check back in a year or two to see what we learn.

Several of the products we tested claimed the ability to restore old, dried out leather. But as you read earlier, Z Custom Leathers said that once it has degraded that far, nothing will bring it back. According to our research, they are correct. We found several leather items that were known to be 30 years or more in age, including an old pair of leather bowling shoes and two baseball gloves. Since the glove is large, it offered enough area to treat part of it and leave the other part untreated. This gave us a perfect test bed for these products. With the old leather shoes, we simply treated one and left the other alone for comparison purposes.

We used several products for the restoration test: Tenderly, NikWax Leather Restorer, and Buffalo Butter. We applied the

products to the leather repeatedly for several days. While the leather never returned to what we would call "new" condition, there was a marked improvement with all products used. Unfortunately, we did not have enough 30-year-old leather to try all of the products, but we can safely say that all of them did offer significant improvements in pliability and softness.

We intended to conduct a water absorption test as part of this evaluation, but after learning more about leather, we discovered that this is not always a good thing if the water treatment seals the leather to prevent it from breathing. The NikWax product claims to waterproof the surface while still allowing it to breathe, but we had no way to evaluate this claim other than to note that the product literature says it uses an EVA polymer and is water-based.

Another important factor for a leather conditioner is for it to be pH balanced, meaning that the product is neither too acidic nor too alkaline. Either can result in damage with extended use. While you may not notice a problem after the first use, continued exposure to a non-pH balanced product can't be a good thing. To measure this, we used a digital pH meter typical of chemistry labs and tested all the samples. In some cases, the products were too thick or otherwise unsuitable for our measuring device, so those were excluded. The pH scale runs from 0 (very acidic) to 14 (very alkaline), with the center of the scale at 7, which is the pH of most living cells including animal hides. In order to keep your leather at the proper pH, you should use products that are close to 7. Minor differences are not likely to cause serious problems, but as you will see in our ratings, some of these products were far from a neutral 7. In our ratings, the closer the pH is to 7, the higher the product's rating is.

Next we rated the products in appearance. It's very important to note here that while some people may buy a leather conditioner to restore the appearance of leather, we are not specifically evaluating this aspect of the product in this test. Therefore, we judged the product on new black leather and based our ratings on the product's ability to dry to a smooth, non-sticky finish that did not leave a false shine or gloss. This is often (but not always) the sign of a product that contains a wax or silicone, which, as we have already advised, is not desirable for the long-term benefit of the leather. For this test, the product was applied exactly as directed by the manufacturer and then allowed to cure for 12 hours. After the curing period, each product was rated based on its appearance. The highest ratings were given to those products that left the leather looking normal and without any artificial shine, and the lower ratings

were given to those products that left an oily, shiny, or otherwise unnatural finish on the leather. Some were still very greasy, even after 12 hours. We felt this would cause the leather to attract even more dirt and debris instead of helping to protect it.

Finally, we rated the products on their ease of application. Since some of the products tested are available in either a cream or a spray-on liquid, in general we found that the ease of application is very dependent on the surface of the garment it is being applied to. For example, a thick paste may be difficult to apply to a complex set of race leathers with graphics sewn all over it, while that same paste may be ideal for application on a smooth pair of leather boots. This rating is quite subjective, but estimated that the average rider will have smooth boots as well as leather jackets or pants that may have uneven surfaces that all need conditioning. Due to

that, our ratings tend to give higher scores to spray or liquid products that are thin enough to flow well onto various surfaces. But keep this in mind, as your personal needs may be different.

### How Often Do I Condition Leather?

For an answer to this question, we again turned to Mansoor Shafi at RoadGear. According to Mansoor, this is very dependent on the frequency of use as well as the conditions of exposure. For example, a person that rides a few thousand miles a year in good weather may only have to clean and condition once or twice a year, while a rider constantly exposing leather garments to harsh conditions may have to clean and condition after every few rides. In fact, riders may even need to clean after every ride if the leather is exposed to lots of perspiration or road salts. We found that properly con-

ditioned leather tends to clean easier, also.

### Spring Ingredients

For the ingredients, we scored as follows: 5—Products that are specifically labeled as not having any oils or waxes, silicones or other bad ingredients.

4—Products that say generic things like "natural ingredients" but *don't* say "no oils, lanolins, etc." If a product claims "waterproofing" ability, we must assume something bad is inside.

3—A product labeled as having 1–2 ingredients on the bad list, like lanolin, oils, sealers, etc.

2—Contains three of the above.

1—Contains hazardous ingredients or drying agents like silicon, alcohol, etc. Also, products that tested off the pH scale, that is *not measurable*, were given a score of 1 on that test. ☹

### Armor All Leather Care

\$5.84



Overall Score: 16.0

Ease Of Use ●●●●○  
 Appearance ●●●●○  
 Ingredients ●●●●○  
 pH 7.45 ●●●●○  
 Size: 9.5 oz. liquid  
 Claims: pH balanced and contains lanolin.  
 Comments: Creamy liquid that is easy to use, pH testing backs up claims. Great leather-like smell.  
 Contact: www.armorall.com

### Blue Magic Leather Cream Conditioner

\$5.99



Overall Score: 19.0

Ease Of Use ●●●●●  
 Appearance ●●●●●  
 Ingredients ●●●●○  
 pH 6.72 ●●●●○  
 Size: 16 oz. liquid  
 Claims: Restores, preserves, moisturizes, contains natural ingredients.  
 Comments: Somewhat watery spray, but is easy to use and its neutral pH makes this a good choice.  
 Contact: www.bluemagic.com

### Chilhowee Buffalo Butter Conditioner

\$9.95



Overall Score: 14.0

Ease Of Use ●●●●○  
 Appearance ●●●●○  
 Ingredients ●●●●○  
 pH 7.91 ●●●●○  
 Size: 8 oz. liquid  
 Claims: Allows leather to breathe yet adds water repellency.  
 Comments: Product was quite oily on the surface of leather and appeared similar to mineral oil or other sealers that clog pores.  
 Contact: www.chilhowee.net (877) 223-1602

### Eagle One Leather Conditioner

\$4.99



Overall Score: 12.0

Ease Of Use ●●●●○  
 Appearance ●●●●○  
 Ingredients ●●●●○  
 pH 8.04 ●●●●○  
 Size: 12 oz. liquid  
 Claims: Contains mink oil, lanolin and neat's-foot oil.  
 Comments: Very thick, oily liquid makes application somewhat difficult except on smooth surfaces. Mink oil and neat's-foot oil are likely to clog pores.  
 Contact: www.eagleone.com

## Product Comparison

### Grasso Waterproofing Paste \$13.95



Overall Score: 8.0

**Ease Of Use** ●●○○○  
**Appearance** ●●○○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 5 oz. paste  
**Claims:** Protects, softens and deeply moisturizes leather. Contains lanolin oil.  
**Comments:** Very thick, greasy paste is difficult to apply. Waterproofing ability will likely clog pores in leather. It's also expensive.  
**Contact:** www.urad.com, (800) 364-2744

### Harness Honey Leather Conditioner \$10.95



Overall Score: 10.0

**Ease Of Use** ●●●○○  
**Appearance** ●●●○○  
**Ingredients** ●●●○○  
**pH n/a** ●○○○○  
**Size:** 16 oz. liquid  
**Claims:** Water-repellent, and leaves no oily residue.  
**Comments:** Thick liquid is somewhat hard to apply but absorbs better than expected. Water-repellency claims raise concern over clogging of pores.  
**Contact:** www.carousel-farm.com, (800) 715-1151

### Meguiar's Gold Class Cleaner & Conditioner \$5.99



Overall Score: 16.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●●○  
**Ingredients** ●●●●○  
**pH 8.2** ●●●○○  
**Size:** 14 oz. liquid  
**Claims:** Mild cleaners with no stripping, pH balanced.  
**Comments:** pH was not as neutral as others labeled pH neutral. Also available as a spray.  
**Contact:** www.meguiars.com (800) 347-5700

### Montana Pitch-Blend Oil \$5.95



Overall Score: 10.0

**Ease Of Use** ●●●○○  
**Appearance** ●●●○○  
**Ingredients** ●●●○○  
**pH n/a** ●○○○○  
**Size:** 8 oz. liquid  
**Claims:** No silicone, alcohol or petroleum. Contains pine pitch, pure mink oil.  
**Comments:** Thick oil is somewhat difficult to apply but mink oil could clog pores in leather. Nice pine scent.  
**Contact:** www.mtpitch-blend.com, (800) 728-0970

### Johnson's Premium Leather Lotion \$5.99



Overall Score: 14.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●○○  
**Ingredients** ●●●○○  
**pH 7.55** ●●●○○  
**Size:** 8 oz. liquid  
**Claims:** Moisturizes/conditions. Polymer enhanced.  
**Comments:** Easy to apply and smells great. Contains silicone which is not recommended and leaves leather quite slippery.  
**Contact:** www.autoproducts.com, (866) 500-3478

### Kiwi Mink Oil \$2.99



Overall Score: 9.0

**Ease Of Use** ●●○○○  
**Appearance** ●●●●○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 2.63 oz. paste  
**Claims:** Conditions and waterproofs, contains mink oil, silicone and lanolin.  
**Comments:** Very thick and hard to apply except on smooth surfaces. Silicone and mink oil can seal the leather, prevent breathing.  
**Contact:** www.kiwicare.com

### Montana Pitch-Blend Dressing \$4.95



Overall Score: 7.0

**Ease Of Use** ●●○○○  
**Appearance** ●●○○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 4 oz. paste  
**Claims:** Contains pine pitch, pure mink oil and whole beeswax—no silicone, alcohol or petroleum.  
**Comments:** Requires a lot of rubbing. Beeswax and mink oil could clog pores in leather. Nice pine scent.  
**Contact:** www.mtpitch-blend.com, (800) 728-0970

### Neatsfoot Compound \$5.99



Overall Score: 8.0

**Ease Of Use** ●●●○○  
**Appearance** ●●○○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 8 oz. liquid  
**Claims:** Replaces oils lost in leather, prevents drying. Waterproofs and softens.  
**Comments:** Thin oily liquid will likely cause clogging of pores in leather. Left leather very oily and slick.  
**Contact:** www.blueribboninc.com (888) 274-2266

### Kiwi Saddle Soap \$2.99



Overall Score: 9.0

**Ease Of Use** ●●○○○  
**Appearance** ●●●○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 3.125 oz. paste  
**Claims:** Cleans and softens, contains fine soap, glycerin, lanolin and wax.  
**Comments:** Thick paste was hard to apply except on smooth surfaces. Not labeled as pH adjusted and unable to test for actual pH.  
**Contact:** www.kiwicare.com

### Lexol Conditioner/preservative \$5.95



Overall Score: 20.0

**Ease Of Use** ●●●●●  
**Appearance** ●●●●●  
**Ingredients** ●●●●●  
**pH 6.95** ●●●●●  
**Size:** 6.75 oz. liquid  
**Claims:** pH balanced, non-greasy, no solvents, non-flammable & odorless.  
**Comments:** Easy to use and perfect pH balance make this a favorite. Also available in spray form.  
**Contact:** www.arctic-wolfleather.com, (800) 913-2345

### Nikwax Aqueous Wax \$13.00



Overall Score: 13.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●●○  
**Ingredients** ●●●●○  
**pH 4.62** ●○○○○  
**Size:** 10 oz. liquid  
**Claims:** Waterproofing but allows leather to breathe.  
**Comments:** Most acidic material in this evaluation. Unable to evaluate breathability claims.  
**Contact:** www.nikwax-usa.com, (800) 335-0260

### Nikwax Leather Restorer \$13.00



Overall Score: 13.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●●○  
**Ingredients** ●●●●○  
**pH 4.62** ●○○○○  
**Size:** 10 oz. liquid  
**Claims:** Water-based, restores suppleness and adds water repellency.  
**Comments:** Sprays on easily and cures to a near natural finish. Unable to evaluate breathability claims. It's also very acidic.  
**Contact:** www.nikwax-usa.com, (800) 335-0260

## Product Comparison

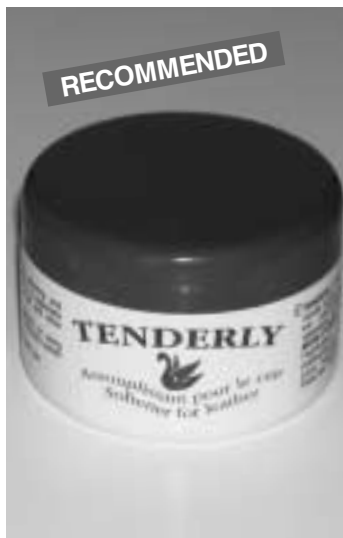
### Queen Helene Cocoa Butter Creme \$3.87



**Overall Score:** 9.0

**Ease Of Use** ●●●○○  
**Appearance** ●●●○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 15 oz. paste  
**Claims:** Contains cocoa butter and lanolin.  
**Comments:** Mineral oil is #1 ingredient. If you decide to use skin care products, search for those without mineral oils or other additives likely to seal the pores of leather.  
**Contact:** Wal-Mart

### Tenderly Leather Softener \$13.95



**Overall Score:** 18.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●●○  
**Ingredients** ●●●●●  
**pH 7.01** ●●●●●  
**Size:** 5 oz. paste  
**Claims:** Softens, protects and cleans soft or delicate leathers.  
**Comments:** Very smooth lotion-like product that includes an applicator. Balanced pH. Somewhat expensive.  
**Contact:** www.urad.com  
 1-800-364-2744

### Turtle Wax Leather Cleaner & Conditioner \$5.99



**Overall Score:** 15.0

**Ease Of Use** ●●●●●  
**Appearance** ●●●●○  
**Ingredients** ●●●○○  
**pH 8.33** ●●●○○  
**Size:** 16 oz. liquid  
**Claims:** Contains cocoa butter, aloe vera and lanolin, pH balanced.  
**Comments:** pH was not neutral. Easy to use spray-on product, but slightly watery. Great leather smell.  
**Contact:** www.turtlex.com  
 (800) CARWAX1

### URAD Cleaner & Conditioner \$10.95



**Overall Score:** 9.0

**Ease Of Use** ●●●○○  
**Appearance** ●●●○○  
**Ingredients** ●●○○○  
**pH n/a** ●○○○○  
**Size:** 3.5 oz. paste  
**Claims:** 'All-natural' containing carnauba wax, lanolin and mineral salts for cleaning.  
**Comments:** Left a somewhat streaky appearance if applied too heavily. Wax will seal leather's pores.  
**Contact:** www.urad.com  
 1-800-364-2744

### Vireo Leather Cleaner & Conditioner \$3.95



**Overall Score:** 15.0

**Ease Of Use** ●●●●●  
**Appearance** ●●●●●  
**Ingredients** ●●●●○  
**pH 9.78** ●○○○○  
**Size:** 8 oz. liquid  
**Claims:** Contains no wax, removes stains and salt.  
**Comments:** Clear spray is easy to use, but high pH.  
**Contact:** www.arcticwolfleather.com  
 (800) 913-2345

### 3M Refresh \$2.99



**Overall Score:** 11.0

**Ease Of Use** ●●●●○  
**Appearance** ●●●○○  
**Ingredients** ●○○○○  
**pH 8.3** ●●●○○  
**Size:** 8.5 oz. liquid  
**Claims:** Protectant with cleaner.  
**Comments:** Product is labeled as containing alcohol and the solvent naphtha and is combustible. Could be drying to leather. Available in several scents.  
**Contact:** www.3m.com