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# The Right Gear For The Perfect Ride

By Jeff Thurmond

Summer, winter, spring and fall – it does not matter. If you have the right riding gear you can ride year round; road conditions permitting. The right gear is the difference between enjoying the ride and being safe, or being uncomfortable and not safe. There is not much worse than being wet and cold on a motorcycle on the road with no place to get out of the wet and get warm.

Depending on the weather you will want to tailor your gear to accommodate you. Let's look at cold weather riding first, then move to spring & fall, and last talk about staying cool when the temperatures are hot.

## Cold Weather Riding

**Do It From The Inside Out** ♦ Start warming up before you even hit the road. Eat!

**Food & Drink** -- Your body will stay warmer longer if you keep the fire within stoked. Have some protein and drink plenty of fluids, staying away from caffeine if possible. What?! No coffee or soda? Well, here's the deal. You need fluids to keep your body hydrated, and while caffeinated products may quench your thirst initially they act as a diuretic, robbing you of fluids that are vital to your body. Take some plain or flavored water, juices or decaf coffee/tea and drink that before, during, and after your ride.

**Layering & Underwear** -- When preparing to ride in the cold weather, layering is the key. And with so many incredible new thin techno fabrics available you don't have to feel immobilized like the Michelin Man anymore! Start with a thin first layer. Look at micro fibers that wick away moisture (yes, you DO sweat, even in the cold). There is some great long underwear that's designed for motorcyclists, with extra padding where you need it. If you don't get that, go to the local sporting goods store. They have tons of great new styles and fabrics and most won't empty your wallet! If not that, then try simple old fashioned long-johns on the bottom, and a long-sleeve cotton t-shirt on top for the under layer.

What you put on next depends on if you have electric heated gear or not.

**Heated Gear** -- Once you've got your first layer covered, go to the next. If you can, invest in heated gear. Start with a heated jacket. The best is by Warm & Safe. This jacket has fleece lining on the neck to eliminate chafing, stretch panels in the sleeves and body, and most important it is 90 watts instead of the other jackets that are between 75 and 78 watts. The 90 watts heats up faster, and gets much warmer. Other brands include BMW & Gerbings. Get the jacket, not the vest. Your arms will really enjoy the heat. You can add electrically heated pant liners, gloves and even socks. Even though BMW's have heated grips, the grips heat the palm of the hand, not where the wind hits the hand. Electric gloves (35 watts) are wonderful and plug right into the heated jacket or the BMW aux plug. The old style heated pants were bulky and the socks are hard to walk with. The new style of heated pants are 35 watt and worn as your underwear, and not only heat but wick away moisture. The new style heated socks have the wire elements only on the tops and 35 watts so no burned feet. With all heated gear, just plug in to your bike and go. With the 1995 and newer R bikes and all K bikes, you have enough alternator to make the heated gear



work. An F bike is marginal. Talk to your favorite motorcycle shop first to make sure your bike's electrical system can manage the extra load.

How you plug in the gear is a personal choice. You can get a simple cord to go from the heated gear to the BMW plug, with an on/off switch in-line. Cheap and direct. Or you can hard-wire the heat control. This way offers options of a dash mounted temperature control knob, a Velcro mounted heat control knob, or a pocket control knob. You can get controls that regulate two sets of gear, or jacket and gloves individually.

Good heated clothing can really make the difference between being absolutely cozy or miserable while out on the road. When wearing heated jackets, keep in mind that you want the electric liner as close to your skin as possible without actually touching your skin. Always wear a thin layer under jacket liners. The heated pants, socks and gloves are designed to be next to the skin. Polar Fleece or Windstopper materials are an excellent layer to put on over heated gear. These items are cozy and comfortable, keep wind from getting to you, and will help trap warm air inside your gear acting as an insulator.

**Jackets & Coats** -- The outerwear you choose is just as important as the underwear. A good cold weather jacket is one that provides wind and water proofness, and is about hip-length. Look for lots of pockets, adjustable waist, snug wrist cuffs, and a good neck closure. Most jackets have a zip out liner. The pure winter jacket is not year-round gear. The jackets/coats that are waterproof on the outside, do not offer as good of summer comfort as the jackets that have the waterproof layer on the inside. But the waterproof on the inside means the outside is not as good at stopping wind, and thus not as warm. Some jackets have three liners, counting the outer layer. Also, consider jackets that have bright colors or good reflective patches – loud jackets save lives.

**Pants** – For cold weather riding, buy winter pants; water and windproof. Look to see if they zip all the way up the sides so they slip on and off over your clothing and boots. Talk about convenience! Of course, it goes without saying that your outer gear should have armor in all the important places, and have some sort of reflective material on it so you can be spotted by deer at night. Most good over pants have a removable thermal liner, meaning you can take out the liner and use the pants as rain pants in the warmer part of the year. Some riding pants are "over pants" and others are designed to be your primary or only pants. Yes, you want another pair of pants for summer – more about these later.

**Gloves** – Cold hands spell misery. Heated BMW grips only keep the palms warm. There are a lot of glove options to choose from. If you ride a lot, you will end up with at least 4 pairs of gloves: Light summer, summer rain waterproof gloves (also work as fall/spring gloves), medium weight gloves, and warm winter gloves.

For winter, you can do either thick, insulated and waterproof gloves, or electric heated gloves. There is a new glove out that is thinner on the palm and heavier on the back to take advantage of heated grips. Another new glove has double Thermolite (branded Thinsilite) on the back. Look for good insulation, i.e. Thinsilite and/or Gore-tex. Make sure they are waterproof. Leather and fabric outer-shells are about equal in weather protection, but the leather will protect you better if you hit the pavement. The leather gloves usually offer more feel than the fabric ones on the grips and controls. The better gloves have a windshield wiper on the left index finger or thumb. Good motorcycle gloves have pre-curved fingers, a padded palm (some have gel padding), and the stitching is on the inside so edges of fingers do not catch on controls. When selecting the gloves, be sure there is wiggle room at the end of the finger sleeves in the gloves; if the fingers hit the end of the glove, your finger tips will get cold, while a tad of extra room acts as air insulation. Winter gloves will have gauntlets that protect your wrists and some are long enough to protect the lower forearm. The gauntlet can be worn over the jacket or inside the sleeve of the jacket.

**Socks** -- What about your feet? As with gloves, you can go with a good insulated sock, or go electric. If you decide to plug-in, put another pair of socks on over your heated ones for insulation. The better socks

are moisture-absorbing. Wool offers better warmth than cotton, but the cotton is usually thinner which may be important depending on your boot fit.



**Boots** -- Go for a good heavy boot with armor in the ankles and shins, and Gore-Tex or another wind and waterproof membrane to keep moisture and cold out. Make sure the soles have good gripping power and leave enough room to allow your toes to move around a little. Immobile toes are frozen toes! The better motorcycle boots have a steel shank in the sole under your arch. Should you have an accident and leave your bike at speed, boots tend to come off. Be sure to get boots that fit somewhat snug; those with extra clasps around the ankles are more likely to stay on. Some boots have zippers and others have laces. If the lace or zipper is on the side, be sure it is covered with a leather flap held with Velcro. If you are after a riding boot appropriate for both winter and off road, but sure there is a steel shank and protected toe, plus the waterproofing.

**Face & Neck** -- Finally, to keep that area around your neck and face warm, check out neckwarmers, scarves, storm hoods (a/k/a polar masks) and balaclavas. Keeping the cold away from your neck, face and ears really helps in the comfort department. Once frigid air blows down your neck and into your jacket it is too late to get warm. Remember, heat leaves the body from the top of the head first, so keeping the head warm is important for good health, comfort and a warm brain to think and stay alert (maybe that is why so many Harley riders are, well, you know....).

Once your body's fueled and dressed properly and if the roads are clear of frost, ice and snow, you can ride all winter long and enjoy the amazing winter scenery while in total comfort!

## Spring & Fall Riding

**Hydration** -- Don't be fooled by the changing weather. Your body still needs food and liquid. Don't deprive your body of the fuel it needs to keep you going and thinking clearly.

**Layering** - Like in the winter, layering is important, and more so as the weather changes. The mornings are cool or cold, midday is warm, and evenings get cool again. Start with a couple of layers of clothing, with a nice long sleeve t-shirt or button shirt on next to the skin, then a sweat shirt or sweater over that, followed by a jacket with good armor. Take your heated jacket with you, even if when you start your ride it is too warm for it - it may get cold as the sun sets and you head for home. A good wind breaker of thin nylon offers great protection from a cool breeze and is light to pack.

**Rain Gear** - It rains more in the Spring and Fall. Take some good rain gear. The inexpensive PVC gear is better than nothing, but you will sweat inside it if it gets warm outside. The good rain gear is coated nylon with vents under the arms, Velcro closure plus either zipper or snaps, and hip-length in the jacket. The pants should be loose enough to be non-restrictive, with Velcro or elastic closure around the ankles, and an opening seam on the bottom of the pant leg to get you into them without removing your boots. Rain gear is also an excellent way to add about 10 to 15 degrees of warmth by being a total wind-stop. Just because it is dry outside does not mean you can't wear the rain gear to add yet another layer of insulation.

**Pants** - You have two choices this time of year. Wear the riding pants you got for winter without the thermal liner, or get a pair of air-mesh pants with a rainproof liner. For this time of year when temperatures range from low 40's in morning and evening, to mid-75's in the day, the air-mesh pants are to be worn over other pants, i.e. jeans, or as your primary pants. With the rainproof liner in place, you have insulation, protection from rain, and great wind protection. Rainproof liners in air-mesh pants is either light weight & thin Gortex or a heavier quilted warmer material.



**Gloves** – For Spring and Fall you do not want the heavy winter gloves or the light summer gloves.

You will want medium weight gloves. You might want to try a pair of deer skin or elk skin. These will get wet just like cow hide, but the water will not hurt the gloves. Leather gloves are softer with better feel than the mid-weight fabric gloves. Another option is summer rain gloves. These are medium weight, keep your hands dry, and are not bulky like winter gloves. They do not offer the same feel of the controls as all-leather gloves. But they do keep you warmer if it rains on a 50° F day. This is why you will end up with at least four (4) pairs of gloves.

**Boots** – Stick with the same boots you used for winter.

**Face & Neck** – You may not start with gear on to keep your face and neck warm, but take it with you. Just like taking the heated jacket, it is better to pack it and be warm if you need it than being cold and catching cold.

## Hot Weather Riding

**Cool it!** ♦ As with winter riding, hot weather riding requires preparation in the hydration department. Make sure to constantly keep the flow of fluids going into your body even as you ride. Ever hear of heatstroke? You don't want to go there. Again, stay away from caffeine and diuretics. A great piece of gear to carry with you is a water hydration system. It consists of a bladder to hold liquid, a straw and a bite-piece. You can strap the bladder to your back, around your waist or even put one in your tank bag and route the hose through your helmet and into your mouth. Bite down on the mouthpiece and you have water on demand! One riding jacket has the water bladder build in. You can't ask for simpler than that. Of course, LT riders have cup holders on the handlebars. If you don't have the bladder (or LT cup holder), stop every hour or so for liquid hydration.

**Layering** -- In getting dressed for a hot day -- be it a hot humid steamy day or hot bake dry day -- layering is important. Some riders feel that wearing gear in the heat makes them too hot. Actually, wearing the RIGHT gear in the heat helps keep your temperature down, besides the obvious protective benefits. Think about people in desert tribes. They wear layers of material for a reason!

**The top half** -- The first thing you want to put on is a lightweight shirt that can wick away moisture and perspiration. This is a good thing. Next, throw on a cooling vest. These are great little items that are inexpensive, pack small, and provide you with amazing comfort when it's hot. There are different styles available but the basic principle is the same: Soak the vest in cool water and wring out the excess water. The older style cool-vests were heavy when wet, but the new style are light and stay moist much longer. Put the cool-vest on over your shirt and then an armored air-mesh outer jacket over it. The vest holds water and as air passes through the jacket and over the vest it creates a swamp cooler effect. This cool air helps to keep your body temperature down and YOU comfortable. The cool vests really are amazing and can help keep you cool for up to about 8-10 hours depending on the lack of humidity outside, the ambient temperature, and how fast you are riding. You can also purchase bandanas that work the same way and keep your neck and the arteries to your head cool.

The air-mesh jackets are great. They offer excellent air flow, while providing the armor you hope you never need. The all season mess-jackets offer a removable liner which leaves just an air-mesh shell for summer riding. The jackets with the waterproofing on the outside usually have air vents for summer cooling. These non-mesh jackets have zip-open mesh flaps ranging in size from "vents" to large mesh openings. The placement and number of the vents determines how hot it can be outside before you get too hot inside the jacket.



**The bottom half** -- Mesh pants are a great way to be protected yet comfortable when the temperatures rise. The best provide a combination of abrasion-resistant mesh and armor. The CE type armor tends not to stick to you as much as some of the hard-plastic armor does in the heat, and it breathes better. Mesh pants allow air to blow through, helping to keep perspiration at bay. Plus, some mesh pants come with an inner liner that is waterproof and removable. On days that hover around 80° F or so, the mesh pants are great over jeans or as your primary pants with the liner. On days that are 100° F, wear just the mesh outer pants over your skivvies so the air actually flows directly onto your skin.

**Hands** -- Gloves are just as important in hot weather as they are in the cold. Hitting the pavement gloveless, whether in summer or winter, can leave your hands looking like hamburger. Ick! Almost all glove manufacturers now make some type of summer glove. They can be ballistic mesh, mesh with armor, mesh with padding, or perforated leather. Make sure the gloves fit well and snug so as not to fly off your hands if you take a spill. Another material you may want to look for in your summer glove is gel in the palms of the gloves. The gel padding goes a long way in reducing vibration in your hands, keeping them ready for anything! Thinner non-perforated leather gloves, or the thinner water/windproof gloves that give you more 'feel' for the controls, are great for cool days. When selecting summer gloves, remember that the three primary reasons for the gloves are to give you a better grip on the hand grips, protect the hands when on the bike from the sting when bugs and rocks hit, and reduce road rash should you fall off. Leather does it better.

**Feet** -- Manufacturers are realizing that great boots for winter are not necessarily great boots for summer riding. BMW, Sidi, TCX (Oxtar) and other companies now make boots that are meant specifically for the heat, while providing good protection. Boots with leather and mesh panels in addition to armor provide good air flow as well as protection should your feet & ankles hit the pavement when you least expect it. A good pair of thin wicking socks or simple cotton socks will also help your feet breathe, and when your feet are happy... YOU are happy!

Pack up some drinks, throw on your gear and head on down the road. If the temperatures start to climb you can laugh at your wilting fellow riders, put on some more sunscreen and ride!

## Apparel Terms You May Not Know

(or don't care if you know)

**Armor \*** (Note: Once armor has been in an impact it should be replaced)

**CE Armor:** Armor approved by the European Union, whose standards in armor are generally higher than accepted standards in the U.S.

**Core-Comp:** Energy-absorbing foam covered in fabric. It is comfortable and flexible.

**EVA foam:** Light weight plastic energy absorbing foam; shock resistant. Comfortable and flexible.

**Hiprotec:** The slimmest CE approved armor on the market. (Hiprotec is 6mm thick)

**Memory Foam:** Soft and pliable. Becomes hard upon impact.

**Dual Density Foam:** The most common type of armor used and the least expensive. It's made of 2 densities of foam that are sandwiched together. Probably the stiffest armor.

## Materials

**Armacor:** A laminate of Cordura, Kevlar and Gore-Tex. Extremely abrasion-resistant, windproof, waterproof and breathable.

**Ballistic Nylon:** Abrasion resistant nylon that is stronger than cotton and polyester.

**Ballistic Poly Kevlar mesh:** Abrasion resistant kevlar / nylon weave. Great heat and impact resistance.

**Cordura:** Nylon fabric that is 2x stronger than Ballistic Nylon. Good abrasion, scuff and tear resistance. Available in different grades. The higher the number of the fabric the better the protection.

**Dynatec:** Material that is stronger than Cordura, more abrasion resistant, more breathable and has a higher melting temperature than Cordura.

**Hypertex:** a Denier weave of nylon that is waterproof, much like ballistic nylon.

**Inotex:** Woven combination of denim and Kevlar. Extremely abrasion resistant yet has the appearance of denim.

**Kevlar:** Extremely abrasion and heat resistant. Can be woven with materials to make it stretchy and more flexible. Degrades over time when exposed to UV light. Often used in “flame proof” motor sport clothing.

**Leather:** The most abrasion resistant material available when used in the proper thickness (1.3-1.5mm). Kangaroo leather is extremely abrasion resistant but almost half as thin as cowhide.

**Thermolite and Thinsilite:** Insulation material to keep you warm.

## Waterproof Materials

**Gore-Tex:** A wind and waterproof membrane. It is extremely breathable and thin. Used in jackets, pants, gloves, boots.

**Hypora:** Thin, breathable insert. Used mostly in gloves and boots.

**Sympatex:** Ultra thin, non-porous polyester membrane. It is windproof, waterproof and breathable.

**Nylon:** When tightly woven, can be a waterproof barrier in clothing, camping gear, etc. Often found in rain suites.

## Wind Chill Factors

Wind chill does not affect your motorcycle’s antifreeze (K & F bike owners). It will have an impact on how fast your home’s exposed water pipes freeze; but has little impact on whether they will freeze or not. The importance of wind chill index is an indicator of how to dress properly for winter weather and riding. In dressing for riding in the cold, the important thing is to entrap the insulating air warmed by body heat. Body skin temperature is 91.7 ° F. As noted before, wear loose-fitting, lightweight, warm clothing in several layers; outer layer should be tightly woven and water repellent.

Flesh will freeze in 30 seconds at -70 ° F. Flesh will flash-freeze at -87 ° F.

Below is a chart showing the Wind Chill Index at various temperatures and wind velocity. There is little difference as wind increases over 40 mph. Given that this all about wind chill on a motorcycle, below are some quick numbers:

Outside Temp In °F	Speed (wind factor)	Wind Chill Index	Outside Temp In °F	Speed (wind factor)	Wind Chill Index
40	55	25	32	55	14
40	65	24	32	65	13
40	80	23	32	80	11
40	90	22	32	90	10
35	55	18	26	55	5
35	65	17	26	65	4
35	80	16	26	80	2
35	90	15	26	90	1
22	55	-1	10	40	-15
22	90	-5	10	60	-19
0	60	-33	-10	60	-48

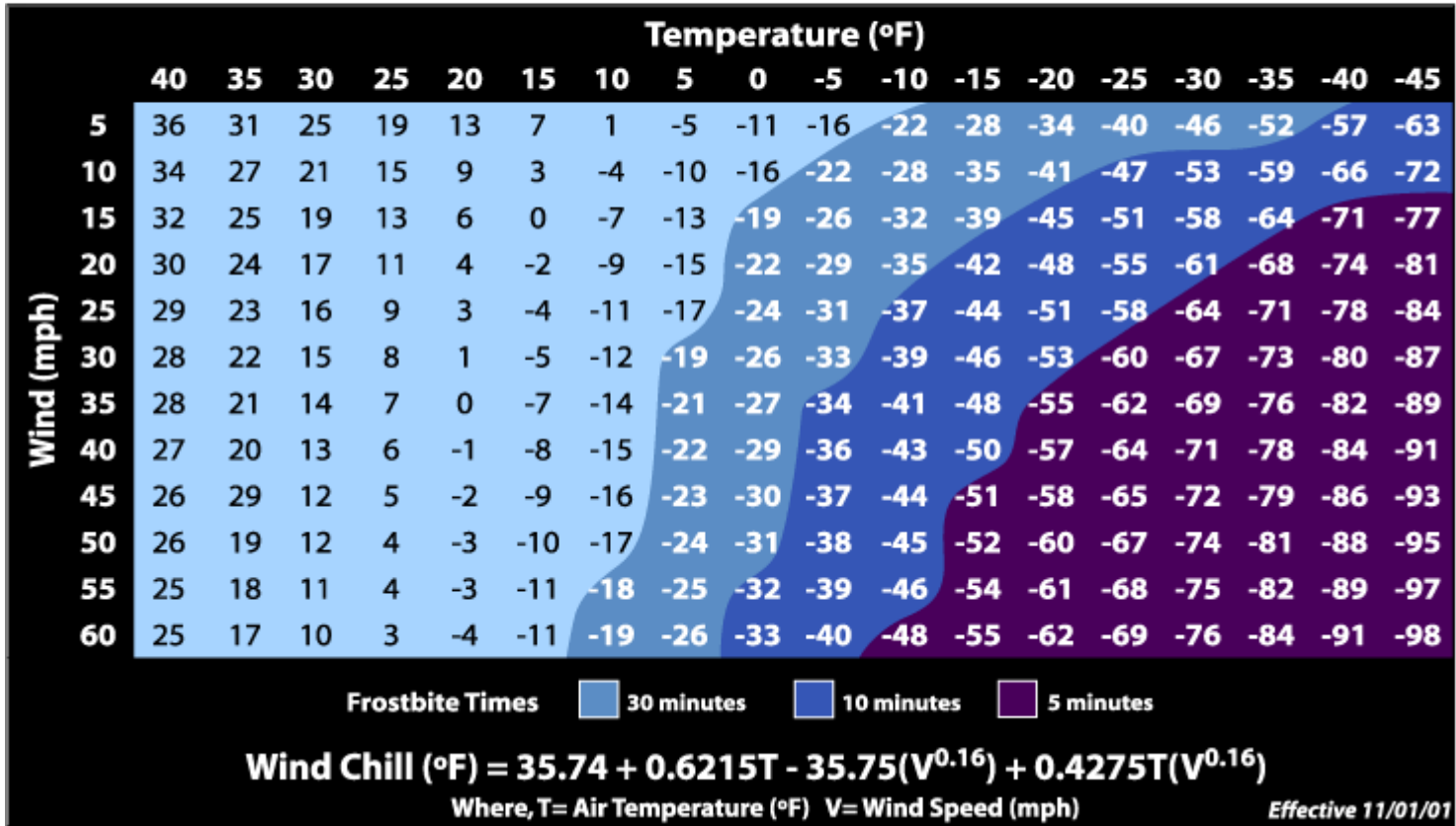
## RIDE YEAR ROUND!



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# Wind Chill Chart



A note about "chemical heat". These are the heat pads that you can put into your gloves, socks, etc. They start working when exposed to the air. You shake them to activate them. They produce heat for about 7 hours. Do not place them directly on your skin as they can produce heat up to 140°F and can blister the skin.

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