

FilmGuard™

U.S. Patent #6,712,994

FilmGuard is a unique film cleaner/conditioner manufactured by Film-Tech. It was designed to have an almost nonexistent vapor level, and as such will not evaporate unlike other film cleaners and conditioners on the market. This is to allow FilmGuard to form a thin coating of lubricant on the surface of the film, providing protection from scratching and dirt accumulation, as well as giving your presentations a true “wet gate” image.

With this in mind, please remember that FilmGuard is very concentrated and there *is* such a thing as “too much” FilmGuard “too fast”. Resoaking the cleaning pads between shows or more than once a week is NOT recommended, as the film can only absorb so much FilmGuard at a time. While FilmGuard can be applied in almost any fashion, the ideal method is to form a thin layer of consistent thickness. It is for this reason we do not recommend cleaning by hand, although many people report excellent results when used in this manner. Instead we have found the Kelmar and Christie dry web media cleaners most theaters already possess to be the ideal method for application. Please note the following recommended practices as proven by FilmGuard test theaters.

Operation Instructions

STEP 1 Wind new media over to the keyed couplers. Three plastic couplers are supplied with each bottle of FilmGuard. This task is accomplished easiest by utilizing the two supply shafts on a media cleaner, winding directly from a new roll to an empty coupler. (Picture 1) This will enable you to reuse the media. Note that if you are using Film-Tech brand media pads, you may skip this step.

STEP 2 Load the media onto the cleaner. Make sure you securely fasten the head end of the media to the take-up core with “invisible” or “Magic” tape. (The use of masking, transparent, painter’s or artist’s tape will leave a gummy residue on the cores and tends to slip during operation.) (Pictures 2, 3 and 5)

STEP 3 Saturate the pads with FilmGuard. Once the cleaner is mounted on the platter (projector mounted cleaners, perform this step before mounting), take the bottle of FilmGuard, attach the sprayer trigger and dial it to “stream”. While pressing the tip of the sprayer **against** the fresh rolls of media, spray enough FilmGuard to completely saturate the pads, preferably to the point where a drop or two falls off the soaked pads. (See picture 4.) The reason for pressing the tip directly against the pads is to prevent the FilmGuard from spraying onto the cleaner and surrounding areas. You are now ready to run.

STEP 4 Reset the media for another run. Should you be running a short movie where it is possible to run two or more shows without rewinding the pads, please refrain from doing so. Again, there is such a thing as “too much, too fast”. At the end of the show, remove the supply caps from the cleaner and loosen the take-up thumbscrews a couple of revolutions so the takeup cores can spin freely. Insert the end of an extra keyed coupler into the coupler that the supply roll of media is wound onto, and rewind the pads back to the start (pictures 7, 8 and 9). Now tighten down the take-up shafts, replace the supply roll caps and you are ready for another run of the film. **Do not forget to retighten the take-up shafts after rewinding or the media will not advance!** Also, be sure to have at least one full revolution of media around the takeup core to ensure that the media grabs and advances properly. Repeat this quick procedure for every pass of the film through the cleaner and ensure that the media never “runs out” during a show by using media pads of sufficient length.

STEP 5 Change your cleaning pads weekly. Once a week thereafter (except as noted in the Frequently Asked Questions of this document), change out the media pads with new pads and soak with FilmGuard in the same manner as detailed in the four steps above. Further recommendations can be found on the following pages.

Although these procedures may appear complicated, you will soon find they are extremely simple and will ultimately save the operator much time in the projection booth. The reason for this saving of time is due to the difference of time required to rewind the media pads (typically about 20-30 seconds per screen) vs. cleaning out the projector and sound head between each show (which can range up to a few minutes with the typical shedding of dry polyester film).

If you are testing FilmGuard for the first time, we highly recommend you demo it on a brand new print that is expected to have a long run to see the incredible coating qualities of FilmGuard. Also be sure to demo it on an older print to see the fantastic cleaning and rejuvenating qualities FilmGuard offers. If used in the manner explained above, your prints will be in better condition on the last day, hundreds of runs later, than when you first received them brand new from the lab!

We believe most questions have been answered here, but should there be any questions regarding FilmGuard, please do not hesitate to ask us. Our email address is on our website under the “contact us” link. Further information on this and other Film-Tech products is available on our web site www.film-tech.com, the largest online site for projectionists, managers and engineers. Come check out our Projection Picture Warehouse of theater projection facilities, equipment manual downloads, video downloads, product reviews, projection tips, reel ID frames database, the Film Handler’s Chat and the discussion Forums.

Frequently Asked Questions and General Tips



PICTURE 1



PICTURE 2



PICTURE 3



PICTURE 4



PICTURE 5



PICTURE 6



PICTURE 7



PICTURE 8



PICTURE 9



PICTURE 10



PICTURE 11



PICTURE 12

***The first time I ran a film with FilmGuard, I noticed some light streaking that resembles vertical lines of water on the projected image. What is this?** This is normal. What you are seeing is the first application of FilmGuard on a dry print and will disappear from the projected image after a run or two, depending on your particular booth environment and your selection of media pads. It is for this reason we highly recommend FilmGuard be applied to your FIRST run-through preview screening on Thursday nights. This way, the audience will not see the streaks, even though the streaking is generally minor. Many projectionists prefer to load up and saturate new pads a few hours or the night before actually running them for the first time to minimize the streaking. If your theater does not permit the pre-screening of films, this is an ideal approach. Alternatively request your dealer supply you with Film-Tech brand media pads, as our current pads have been designed to minimize projected streaking over other brands of media pads.

***Once I start, can I stop using FilmGuard on a print that I have cleaned with it?** Yes you can. There will be no detrimental effects whatsoever, however you will notice some lingering benefits from your previous use in the reduction of print shedding, static and general cleanliness.

***Can FilmGuard be used with any print?** Yes, FilmGuard is safe to use on all film of all gauges, whether they are acetate, polyester, or even if it has a magnetic sound track. However if you use FilmGuard with used prints that have been rejuvenated with "3M Photoguard" (or similar off-shoots such as "Dacar's ImageGuard"), you will see an incredible amount of blotching on the first few runs that projects like water beading on a freshly waxed car. These prints are very rare and most projectionists will never handle such a print, but they can be identified by an extra thick, tacky surface with a rainbow light reflection to it. Should you apply FilmGuard to one of these prints, it will not damage the print, but will take multiple runs for the blotches to smooth out.

***I cannot steady the picture with the gate tension setting. What am I doing wrong?** We have found that a few Christie and Simplex projectors in the field suffer from the gate not applying enough tension to the film. Although this is very rare, an excellent fix for this on Christie projectors is to have your technician install a second "gate tension spring" (Christie's part number is #120679-001) to the one already in the gate assembly. Alternatively (and for Strong projectors) sandwich a tiny piece of cardboard from the back of a notepad of paper at the top and behind each gate band to tense the bands up just a little bit more. (See picture 12) This will add just a touch of extra tension and work well for FilmGuarded prints as well as dry prints. Do note, most projectors will function fine "as is" without this modification. If you experience this problem with your projector, please do not hesitate to contact us for specific assistance. Again, this is a very rare situation and the overwhelming odds are that you will not encounter this difficulty.

***I do not have a media cleaning machine. Can I still use FilmGuard?** Yes, FilmGuard can be used to effectively neutralize static and put an end to most shedding simply by spraying the FilmGuard onto a thick paper towel or rag (do not spray directly onto print) and wiping the edges as it lays on the platter as the deck is spinning. (See picture 11.) Then, the film can be taken up in the opposite direction of normal practice (for example, soundtrack down) and the other edge wiped the following show. For changeover theatres, this can be easily accomplished by wiping the edges of the film while on cores. Please note, when using FilmGuard in this manner it will not be able to "clean" the image, but will far outperform any other lubricant you can put on the film. Many theatres are using FilmGuard in this manner with excellent results to prevent static disasters such as brain wraps and to keep their prints from shedding, which is where most projected dirt comes from.

***I plan on cleaning my prints by hand on the rewind bench. Is there anything special I need to know?** Yes! Please remember that a full-length 35mm movie will only use approximately one OUNCE of FilmGuard! The traditional rule of thumb with typical film cleaners is to keep the cloth very well saturated. This is NOT the case with FilmGuard and is why we specifically do not recommend cleaning by hand, as the film almost always gets over saturated to the point where the projector cannot properly shuttle it through the gate without making another cleaning pass using a dry cloth to wipe the top layer of FilmGuard off because the film is so slick. The other thing to keep in mind that it is not necessary to wait until the cleaner evaporates before it is wound onto the takeup reel. FilmGuard is designed to be a **very** slow evaporating cleaner (6-12 months) and the rewind table can be ran at a good speed (3-4 times normal projection speed) without fear of spotting.

***When is the best time to change out the media pads?** We recommend this be done on Wednesdays, since generally Thursday nights are busy with print buildup and breakdown. There is no need to change out the cleaning pads earlier, unless you receive an unusually dirty print. Also remember there is no need to change and resoak the pads more than once a week unless your booth environment causes the pads to dry out unusually quick. To date there have been no reports of this being a problem, so changing out pads earlier than in 7 day increments will probably not be necessary. (Note: for theaters that only run 2 or 3 shows a day or "weekends only" performances, we recommend 10-14 day change outs.) Remember, a little bit goes a **very** long way! A single 32oz bottle will last a typical 8 screen a month, running cleaners on every screen, every show. Another note, the pads will accumulate an incredible amount of dirt over the course of the week. Depending on the film stock and lab practices used in the manufacture of a given print, you may also find the pads to turn different colors, such as black, yellow, red, purple or green. All of these effects are normal and no need for concern.

***What if I do not have a media cleaning machine for every auditorium?** For theaters in this scenario, excellent results have been obtained by cycling the cleaners from screen to screen. For example, let's say you are running a 12 screen and have 4 cleaners. Put your 4 cleaners on the 4 newest prints and run for Friday, Saturday and Sunday. Then load up new saturated pads and move the cleaners to the next 4 screens for Monday and Tuesday. Finally, repeat with new saturated pads and run on your last 4 auditoriums for Wednesday and Thursday.

***I am occasionally noticing a slight buildup of residue, generally on the sound drum, but occasionally on the gate bands. Is this normal?** Yes, although minor and only affecting certain climates, this is normal and is best cleaned with a little bit of degreaser soaked on a rag. Do NOT use other lubricants such as Xe-Kote for this purpose. Other lubricants can cause discoloration of the image dyes on the film. We recommend "LPS Cleaner/Degreaser" for this purpose, but most degreasers will work fine. Note, although many degreasers come in aerosol cans, do **NOT** spray the degreaser directly onto the sound drum, as it may cause your bearings to freeze. Instead, spray a little bit on a shop rag, paper towel, or cloth and wipe clean. It will wipe off effortlessly. If you decide to use the LPS product, they can provide vendors in your area at 1-800-241-8334.

***On the first run of freshly soaked new media pads,** we recommend the leader not be cleaned. This is a personal recommendation, as we do not like our leaders to be slick from the lubricant. The first run of freshly soaked pads will obviously deposit the most FilmGuard than subsequent shows, thus after the first run, we normally run the entire stretch of leader through the cleaner as common practice. To skip the leader on this first run, simply thread the projector/platter as normal and motor down to the start position. THEN place the film into the cleaner.

***Which takeup core should I use?** There are currently 3 types of cores being manufactured. The first type is made out of cardboard and is what Neumade and Big Sky are winding their media on. Its diameter is slightly smaller than is desired for the cleaners to run at peak performance, and they fit very tightly on the cleaner shafts. Because of this, we do not recommend these be used, as these have been proven to cause winding issues and premature failure of the takeup inserts on the cleaning machine. The second type is provided with Kelmar media, and is supplied with new Kelmar cleaning machines. These cores have the inner diameter that the cleaning machine was designed around and in most situations will work fine for takeup cores. The third type is the black Film-Tech plastic coupling cores, supplied with this FilmGuard kit and is used on all rolls of Film-Tech brand media pads. These cores have the same inner diameter as the Kelmar, but because they are plastic they do not get crushed and out-of-round. As such they spin more freely, allowing for smoother operation and a better overall grab.

***I am finding that my media does not advance during the run of the movie.** A quick test is to place a plastic (or cardboard) core on the takeup shaft and tighten down the thumbscrew so that it is snug. (Never over tighten these or damage to the cleaner could occur.) With the thumbscrews tightened, see if the core is allowed to spin. If it does, then the rubber is not compressed enough and will not grab the core, and the media will not advance as a result. On the flip side, once the thumbscrews have been loosened a couple of turns, the core **should** spin freely, otherwise smooth rewind of the media will be very difficult to achieve. If your cleaner does not perform in this manner, it is time to change the rubber inserts. Remember also to attach the media to the takeup core with "Magic" or "invisible" tape to ensure it will grab the core and not work it's way loose, which can happen when using masking, transparent, painter's or artist's tape.

***I am experiencing problems with the media not winding straight. Are there any tricks to the rewinding process?** First, are you making sure the media is attached straight and not crooked to the takeup shafts? If you load up the pads at a slight angle, this could cause the media to "run off" of the idler rollers during the show. The easiest method to ensure you have attached the media straight is to hold the supply roll from turning and tense the media so there are no folds in the media before taping to the takeup core. (See picture 2 for a bad example and picture 3 for a good example.) Please note that due to variances between cleaners, simply lining up the edge of the media with the edge of the takeup core will not always result in proper alignment, nor does assuming the cut end of the media is indeed cut square to the roll. Second, as you are facing the operating side of the cleaning machine and with the cleaner sitting upright, try loading up the bottom supply pad "backwards", so the roll spins counter-clockwise, which is directly opposite the arrows printed on the machine. As this forces the media to wrap more around the idler roller, this assists in allowing the media to run straight. (See picture 5.) Third, is the roller on the cleaner's mounting bracket lining up properly with the film in the cleaner? Some of these rollers do not align exactly and can cause the media to run off during operation. Finally, Neumade and Big Sky brand media is very thin and tends to have issues winding straight. If none of these tricks solves your problems, be sure to try using a box of Film-Tech brand media pads, as they have the highest slitting tolerances of all media on the market and its binder is designed to be rewound and reused specifically for this purpose.

***When rewinding the media,** stand to the side of the film cleaner (with it upside down on the platter mount or on a table) such that the main drive wheel is protruding towards you and use two fingers from your left hand to act as "guides" on the supply roll during the rewinding process, while using your right hand to spin the coupled extender. (See pictures 8 and 9.) When rewound in this fashion, media can be reused for the entire week's duration without any folding of the edges.

***When you are changing out the pads at the end of each week,** it is far easier to simply loosen the take-up thumbscrews and pull the used media cloth off of the take-up core than to remove the entire roll and core. (See picture 6.) We recommend using the same plastic take-up cores to prevent parts from getting lost on the takeup shafts.

***Should your theater use Christie platters,** please remove the back-tension spring inside the center brain roller. (Picture 10) This spring exerts too much tension on the film as it is pulled over the cleaning pads and could cause scratching. The spring is only required for installations where the platter distance to the projector is greater than 15 feet. In addition, theaters running with Big Sky or MiT platters may want to make the proper adjustments to the drag roller so that the payout back tension is not too excessive.

***The preferred mounting place for the cleaner is on the platter.** Christie platters are shipped with pre-drilled mounting holes in the side of the tree. Other makes of platters can have mounting holes drilled and tapped to provide such a mount. If you only have a mount on top of the projector, this will work fine. However, we recommend the cleaners to be platter mounted waist-high purely for ease of rewinding the pads. Once you try it, you will quickly agree.

***If you are using Film-Tech brand media pads,** take note that these pads are extremely long and movies should not be ran two or three passes before rewinding. If you choose to do so, you may split up Film-Tech brand media rolls in halves or thirds before use, as this will help to make sure the print is not over saturated due to passing it through pads more than one time before rewinding. (Please be sure to not cut the pads too short. The media should NEVER "run out" during a performance, as that can scratch the film.) Film-Tech media pads are cut to this extended length to provide the best value on the market and by the request of our customers, however Kelmar, Neumade and Big Sky all manufacture media suitable for use with FilmGuard.

We thank you for your interest in providing the highest possible presentation by using FilmGuard.
Again if there are any questions, please email us at the address in the "contact us" link of www.film-tech.com