

Organic Fillers For Warming Pads: We Compare Rice, Corn and Flaxseed

Editor: Liz Johnson

Tuesday, 09 September 2014 1:00



Microwavable heating pads with organic fillers are a wonderful way to soothe sore muscles or just warm up on a cold day. Their combination of toasty warmth and good smell are a natural remedy you can enjoy every day without side effects. The [warming pad project we did](#) here at Sew4Home is one of the most popular gift items ever featured. Most likely, it's because they're not only functional, they're also really easy to make. Everybody who makes them seems to have a favorite filler. So we thought we'd do a little testing to see if we could find out which one is best.

Cotton on the outside, but what should go inside?

You *can* use other substrates, our original pad project featured fleece and cotton ticking, but the traditional choice for anything microwavable is 100% cotton. It can get very warm without melting and has a nice feel against your skin. Of course, like anything you put in the microwave, even cotton will eventually burn if you cook it too long. The benefit to using the organic fillers is they require very little time to heat thoroughly, fifteen to thirty seconds is usually plenty.

But what about the filler? What should you put *inside* your heating pad to get the best results?

First of all, you want your filler material to be microwavable; that eliminates anything with a metallic component, which will spark. It should stay warm for an extended period of time. It should have a nice smell or no odor when heated. And finally, it should have a nice feel against your skin. This last reason is probably why neck warmers filled with driveway gravel never caught on.

Talking with our Sew4Home team and then looking at what's recommended on the web, we found a number of different fillers people have tried. The more exotic range from silica beads to cherry pits. But the ones that appear to be the most popular (and in our experience the most practical) are: rice, dried corn, and flaxseed.



All three meet the requirements of retaining heat, having a pleasant smell, and feeling good against your skin. Additionally, we like the fact you can buy any of these very inexpensively in the bulk food section at most supermarkets. If you're making more than a few heating pads, this is something to consider.

We wanted to know which of our three finalists – rice, dried corn, and flaxseed – would perform best in a highly scientific test.

Which heating pad filler is best? Our scientific analysis.

To test our fillers we made three 5½" x 5½" test pads from scrap cotton fabric and filled each with 1½ cups of the various fillers.



We chose to compare them by volume rather than weight because that's the limitation on your sewn warming pad.



Heat retention

Using a 1.65 kilowatt microwave, we heated each of the pads for thirty seconds. Using a food thermometer, we measured how warm the pad was right when we took it out. And then how warm it was after sitting out for five minutes.

As a reference, we heated a cup of water to 140° and found it had cooled to 124° in five minutes.

Rice: 140° out of the microwave. Five minutes later had cooled to 136°.

Dried Corn: 158° out of the microwave. Five minutes later had cooled to 142°.

Flaxseed: 144° out of the microwave. Five minutes later had cooled to 142°. *This one retained the most amount of heat.*

Smell

We'd heard some people complain that grains, like the rice and corn, can have a cooked smell when heated. We didn't detect any strong smell. But cooking odors may be caused when the grains are microwaved too long and burn a little.

Flaxseed is a seed and so much less prone to cook. However, of the three, the flaxseed actually had the most noticeable smell.

Feel

This is the most subjective test. It really depends on the texture you like on your skin.

Rice: This has a nice "full" feel, almost like a batting fiber.

Dried Corn: It has a granular, pebble feel that's pleasant when resting on your arm or neck.

Flaxseed: This flowed the most easily and conformed to where you laid it.

Cost

As mentioned above, we narrowed it down to our three finalists because they were so readily available from the majority of supermarkets with bulk bins. All were well under \$1.00 per pound.

Rice: \$.53 per pound

Dried Corn: \$.96 per pound

Flaxseed: \$.83 per pound

Conclusion

If you're going solely for heat retention, use flaxseed. But all three of the fillers we tested performed better than water and so would stay warm longer than a traditional hot water bottle. For smell and feel, we found things to like about all three.

We now expect the major scientific journals to begin clamoring for the publishing rights to our detailed research, but you can use it for free.

Conduct your own experiment

Put on your white lab coat and do some testing of your own.

Make a few of our [Microwaveable Rice Heating Pads](#) and give each one a different filler. Ask your family and friends to tell you which one they like best. Then leave us a comment about what you found out.

Sewing Tips & Tricks

This project and patterns (if any) may be downloaded for personal use only. No electronic or printed reproduction permitted without the prior written consent of Sew4Home LLC.

Copyright 2009-2018 Sew4Home LLC. All Rights Reserved.

Source URL: <https://sew4home.com/tips-resources/sewing-tips-tricks/organic-fillers-warming-pads-we-compare-rice-corn-and-flaxseed?page=2>