

## Ship-to-Home Pharmaceuticals Case Study: WarmMark



### Company Profile

**Industry:** Pharmaceutical

**Application:** Direct-to-Consumer Shipping

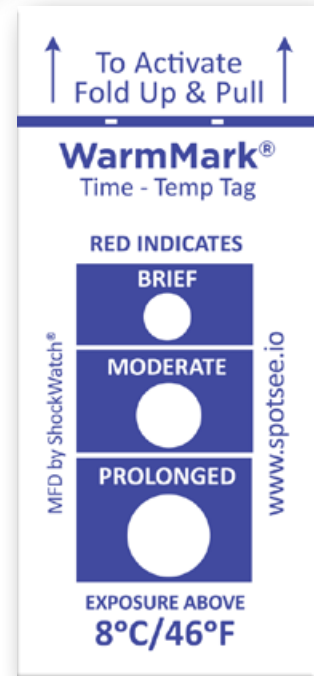
**Challenge:** Maintaining the proper temperatures during shipment.

### Safeguard Direct-to-Consumer Pharmaceutical Shipments with WarmMark

Shipping medications from the pharmacy directly to patients at homes is standard practice today for the local drugstore as well as large regional and national chains. Maintaining proper temperatures during shipment, therefore, is a concern. That's because fluctuations in temperature can shorten the useable life of some medications make some others less effective or, sometimes, dangerous.

At the wrong temperature, some creams can separate, and lozenges can melt which can affect their potency (how well they work) which can be harmful to a patient's health.

Insulin is a good example. It should be stored between 2°C and 8°C. At 25°C – a reasonable temperature to expect during warm weather – insulin's shelf life drops to about six weeks. In that case, the insulin is still safe and effective, but a patient receiving a warm package may return it "just to be safe." The result is added costs for the pharmacy and inconvenience for the customer.



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Tablets and capsules often can be shipped and stored at room temperature or controlled room temperature. Much of the time, thermal packaging isn't needed to keep these medications between the defined of 20°C and 25°C (68°–77°F), with excursions permitted up to 30°C (86°F), according to the United States Pharmacopeia. But if these solid medications become too hot for too long, they still may look the same. Therefore, it's important to monitor pharmaceuticals to know, beyond a doubt, that they were handled safely.

Whether medications are shipped across town or across a region, adding a temperature indicator is a smart decision that can save pharmacies time and money in the long run.

### Monitoring the temperature inside shipments does three things:

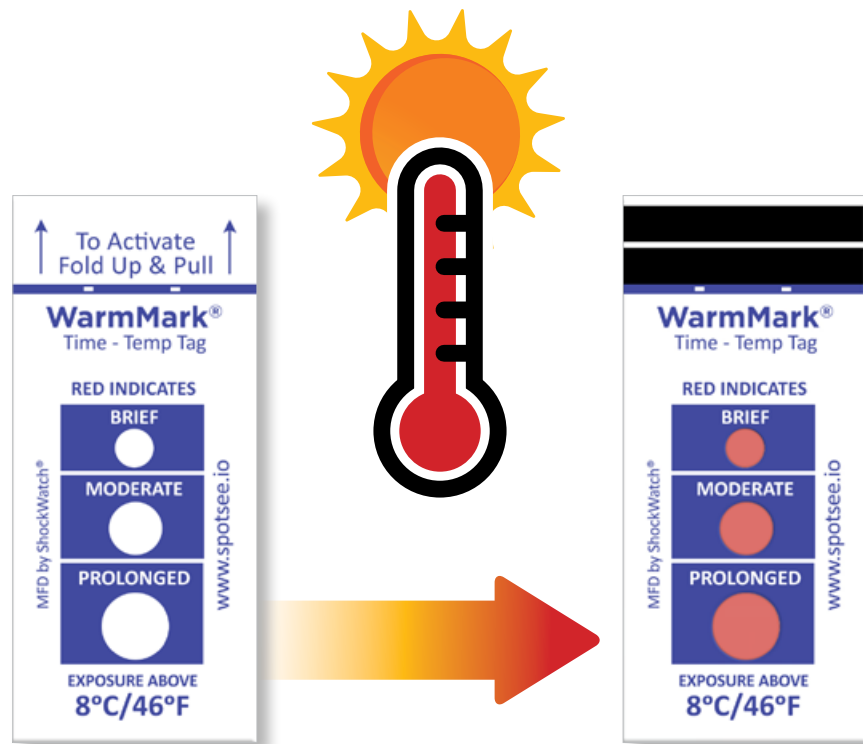
- 1 Ensures the medication wasn't damaged by heat during shipping, thus safeguarding the health of your customers.
- 2 Reduces returns, thus lowering your shipping and handling.
- 3 Shows attention to detail, thus protecting your reputation.



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Validated thermal packaging is the first line of cold chain defence, but how do you know your packaging works every time and in all seasons? Unless you monitor product temperatures inside those packages, you don't.

Adding a WarmMark temperature indicator to each pharmaceutical shipment is a small price to pay to avoid the much greater costs of failure.



WarmMark is an easy-to-read thermal indicator that turns red when temperature excursions occur. Available in 10 temperature ranges, this temperature indicator features individual dots to signify brief, moderate, or prolonged temperature excursions. Importantly, those terms are defined, and vary based on the temperature threshold of the temperature monitor. For example, "brief" exposure means two hours at 0°C/32°F, but means 30 minutes at 25°C/77°F and above.

WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag	WarmMark® Time - Temp Tag
RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES	RED INDICATES
BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF	BRIEF
MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE	MODERATE
PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED	PROLONGED
EXPOSURE ABOVE -18°C/0°F	EXPOSURE ABOVE 0°C/32°F	EXPOSURE ABOVE 5°C/41°F	EXPOSURE ABOVE 8°C/46°F	EXPOSURE ABOVE 10°C/50°F	EXPOSURE ABOVE 20°C/68°F	EXPOSURE ABOVE 25°C/77°F	EXPOSURE ABOVE 30°C/86°F	EXPOSURE ABOVE 37°C/99°F	EXPOSURE ABOVE 2°C/35°F	EXPOSURE ABOVE 8°C/46°F	EXPOSURE ABOVE 25°C/77°F


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By adding WarmMark, a single-use temperature indicator, to packages, pharmacies can ensure their customers know the product they receive has maintained proper temperatures between the pharmacy and customers' homes. If failures occur, their customers can see that, just by glancing at the indicator. Then they can contact the pharmacy or follow the brief instructions that you probably inserted along with the usage instructions. That way, they'll know whether their medications should be replaced or whether they are still safe to use, and for how long.

Pharmacies also can use temperature monitoring to gain visibility into their mail-to-home shipping program. Tracking any temperature excursions and correlating them with season, ambient temperature, packaging, carrier, or other parameters you can make adjustments that ultimately reduce your returns, thus reducing replacements costs (including the cost of medication and shipping).

The benefits of adding a temperature indicator to direct-to-consumer pharmaceutical shipments, far outweighs the costs. And, it protects you and your customer if temperature excursions do occur.



WarmMark is an easy, economical way to ensure that medications reach your customers safely, saving you money in the long run.