

Rad-Control | Irradiation Tags

Frequently Asked Questions



1. Do I need to apply a tag onto each blood bag?

Our indicator tags are intended to verify whether a blood product has been inside an irradiation machine and exposed to the irradiation process. It is important to confirm each blood product has been irradiated as part of the blood irradiation verification process. We recommend referring to your facility's protocol or contacting your Typenex® Medical representative for further consultation.

2. How do I best affix the tag to the blood bag?

Here are some helpful tips to properly adhere Rad-Control Irradiation Tags:

- Wipe off any condensation from the blood bag prior to application.
- Apply the tag to a clean, dry surface on the blood bag.
- Keep a portion of the tag on the blood bag label for better adhesion.
- Using your thumbs, press down firmly to effectively apply the tag.

3. For Rad-Control Standard: Why does the indicator window show a reddish tint after irradiation?

Our indicator tags are designed to turn black at a minimum of 25 Gy. According to the FDA, the dose of irradiation delivered should be 25 Gy targeted to the central portion of the container and 15 Gy should be the minimum dose at any other point. It should be recognized that the irradiation delivered to the instrument canister (as identified by isodose curves supplied by the manufacturer) may differ from the actual dose delivered to the blood bag or container (as quantified by thermoluminescence dosimeter (TLD) chips or other direct method of measurement).¹ As a result, you may see a reddish tint in your tag's indicator window. Please consult the dosage map to confirm the minimum dose. We also recommend storing your tags at room temperature, as storing them in a refrigerator will lead to diminished discoloration. If your tags were stored in a refrigerator, leave them at room temperature for 24 hours to fully restore their functionality. As long as there is a clear, unambiguous color change, a reddish tint is generally no cause for concern.

4. For Rad-Control Standard: After irradiation, part of the indicator window did not turn black and is still showing some red. Is the blood product permissible?

Yes, this is typically due to some form of physical damage to the tag during handling. A red line may be visible if the tag is bent, bumped, or scratched. If the majority of the indicator window turns black, you can rest assured that the blood product has successfully been irradiated.

5. For Rad-Control Barcode: Why isn't the indicator window displaying a completely black barcode?

The indicator window will transition into an electronically readable barcode to verify irradiation. Please note that positive verification is provided by the ability to electronically scan the barcode. The barcode's color does not indicate verification; therefore, the barcode does not need to turn completely black.

6. Why isn't there a temperature indicator card in my box of tags?

Because Rad-Control Irradiation Tags are stored at room temperature, a temperature indicator card is not needed. Please see additional resources on our website for more information on temperature and storage.

7. What happens if the temperature and storage condition limits are exceeded?

Our 25 Gy tags were systematically tested in extreme conditions to verify functionality. Tags exposed to temperatures below -4 °C can be fully restored by keeping the tags at room temperature for 24 hours. Tags exposed to temperatures at -18 °C are still functional after 20 days; tags exposed to temperatures at 30 °C are still functional after 14 days; tags exposed to temperatures at 40 °C are still functional after 6 days. Temperatures higher than 50 °C cause irreversible damage to the tags.

¹Food and Drug Administration, *Gamma Irradiation of Blood Products*. Bethesda, MD: 1993.
<https://www.fda.gov/files/vaccines%2C%20blood%20%26%20biologics/published/Recommendations-Regarding-License-Amendments-and-Procedures-for-Gamma-Irradiation-of-Blood-Products.pdf>