

FAQ

EXCEL® IV Container

How are B. Braun IV containers different from those that contain PVC?

B. Braun IV containers are biologically inert and are not made with PVC or the plasticizer DEHP. When certain medications come in contact with PVC, there is potential for sorption of the drug and therefore the release of DEHP into the fluid and/or absorption of the active ingredient with subsequent sub-therapeutic dosing. Using B. Braun IV containers minimizes patient exposure to the toxic DEHP plasticizer compared to using PVC containers containing DEHP.

Can we use a marking pen to write on EXCEL IV containers?

We do not conduct any biocompatibility testing on the inks used in the manufacturing of marking pens. Therefore, we do not recommend using any marking pen on the fluid contact area of EXCEL IV containers.

How long and at what temperature can EXCEL IV containers be placed in a warmer?

B. Braun conducted container integrity, as well as chemical and biological stability testing, on the following products to support warming up to 40°C for a period of up to 30 days or until expiration, whichever is sooner.

Product	Item Number(s)
0.9% Sodium Chloride Injection USP ¹	L8000, L8001, L8002
Lactated Ringer's Injection USP ²	L7500, L7501, L7502
20% Mannitol Injection USP ³	L5781

Please note that exposure of pharmaceutical products to heat should be minimized whenever possible and that excessive heat should also be avoided.⁴ B. Braun's product manufactured in the EXCEL IV container should be stored at room temperature (25°C) whenever possible. Do not return products into stock after warming. Please refer to the product label for more information.

How long and at what temperature can the EXCEL IV container be placed in a refrigerator?

B. Braun conducted chemical and biological stability testing of 0.9% Sodium Chloride in the EXCEL IV container throughout the labeled shelf life of the product. This testing was conducted at 25°C through expiry and at 40°C for 90 days and 180 days. In addition, B. Braun conducted chemical and biological stability testing of 0.9% Sodium Chloride after exposure to 2°–8°C for 90 days.¹ The stability testing demonstrates that 2°–8°C exposure for 90 days has no impact on the solution.

The labeling for EXCEL IV products contains a statement to protect from freezing. The labeling also recommends that the product be stored at room temperature (25°C).⁴ Product that has been exposed to 2°–8°C and not used within 90 days must be discarded.

Can EXCEL IV containers be transported in a pneumatic tube system?

While the EXCEL IV container design offers clinical, safety, and environmental benefits, it is not as indestructible as PVC. Consequently, it must be handled differently with each type of pneumatic tube system.^{5,6}

6-inch Pneumatic Tube Systems: The EXCEL IV container can survive transport in well-maintained 6-inch tube systems. Foam padding also should be used when transporting IV bags.

- Reduce the potential for the container film getting pinched by placing the container in the carrier on its side and performing a visual check.
- Padding can cushion the impact and protect the container from sharp edges inside the carrier. In 6 inch carriers, special foam inserts can be used for this purpose.

What are the target and overfill volume specifications of the EXCEL IV container?

The United States Pharmacopeia (USP) requirements for the fill volume of a large volume parenteral product state that each intravenous solution container is filled with "a volume in slight excess of the labeled 'size' or 'that volume which is to be withdrawn'." Under hospital use conditions, most of the excess solution is expended in the process of flushing and filling the administration set at the initiation of the infusion. For containers of 50 mL or greater volume, the USP <1151> recommended excess volume is 2% (3% for viscous solutions), which is considered sufficient to permit withdrawal and administration of the labeled volume.

The overfill volume for the EXCEL IV container includes the 2% overfill recommended by the USP <1151> to compensate for the residual volume left in the container after drainage, and addition of a sufficient amount of solution (approximately 2%) to allow for water vapor transmission losses out of the container over the shelf life of the product. The remaining overfill volume, which is accounted for by the variation in the amount of solution dispensed by the filling equipment, assures that the product contains at least the labeled volume plus the overfill volumes listed below. Solutions in the EXCEL IV container are formulated to ensure that the vapor transmission losses do not affect the claimed solution volumes and concentrations over the shelf life of the product.

The overfill volumes for EXCEL IV containers are as follows:

Container Size	Nominal Fill Volume	Lower Limit (mL)	Upper Limit (mL)
250 mL	270 mL	-7	+6
500 mL	532 mL	-9	+18
1000 mL	1058 mL	-15	+30

How long can the EXCEL IV container be stored without its plastic overwrap?

The EXCEL 250 mL, 500 mL, and 1000 mL IV containers, without any additions, can be stored at 25°C for one (1) month without plastic overwrap (or until its expiration date, whichever is sooner). This storage time is based on B. Braun testing. We recommend that you follow your facility protocol regarding proper storage of drug product containers.

What are the residual volume specifications for the EXCEL IV container?

After administration, it is common for a small amount of solution to remain in any IV bag. The residual amount is negligible and should not significantly affect the therapeutic dose of IV additives.

What are the additive volume specifications of the EXCEL® IV container?

Additive volume for the different size containers are as follows:

Container Size	Recommended Maximum Additive Volume
250 mL	40 mL
500 mL	50 mL
1000 mL	200 mL

Can EXCEL IV containers be pressure infused?

B. Braun has conducted compatibility testing and recommends the following pressure cuffs for use with the EXCEL IV container: ^{7,8}

250 mL EXCEL
Ethox Medical Infu-Surge 4005H
BD-Carefusion Vital Signs IN800048
BD-Carefusion Vital Signs IN800012
Spacelabs Healthcare/ StatCorp Medical Unifusor Plus 1103X-05
Premier Pro Pressure Infuser 8800
500 mL EXCEL
Ethox Medical Infu-Surge 4005H
BD-Carefusion Vital Signs IN800048
BD-Carefusion Vital Signs IN800012
Spacelabs Healthcare/ StatCorp Medical Unifusor Plus 1103X-05
Premier Pro Pressure Infuser 8800
1000 mL EXCEL
Ethox Medical Infu-Surg 4010H
BD-Carefusion Vital Signs IN900012
Spacelabs Healthcare/StatCorp Medical Unifusor Plus 1104X-05
Premier Pro Pressure Infuser 8800

The EXCEL IV container is designed to withstand pressure infusion up to 300 mmHG for 24 hours.

What are the dimples on the back side of the EXCEL IV container?

The trays used for the sterilization process cause the dimpled texture on the back of the container. This does not affect the integrity of the container.

Why is there moisture between the primary container and the overwrap?

The overwrap of the EXCEL IV container may contain moisture due to condensation from the sterilization process. Over the period of a few months the area between the overwrap and the container will dry. A moist container is not an unusual phenomenon and is not an indication of a leaking container. However, a significant amount of fluid (an inch or more) could indicate a leaking container. After removing from the overwrap the container should be squeezed to check for minute leaks.

Can EXCEL® IV containers be recycled?

EXCEL IV containers are made of a rubberized blend of propylene and ethylene and are recyclable with the number "7" as the resin identification number. Please follow your facility's protocol for the recycling of fluid containers.

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1. RPT-PH-1009451
2. RPT-PH-1006516
3. Mannitol NDA 020006
4. 0.9% Sodium Chloride Injection in EXCEL® FDA Approved Package Insert
- 5 RPT-PH-1007854
- 6 RPT-PH-1007855
7. RPT-PH-1009257
8. RPT-PH-1006292