

# DuraSeal® Dural Sealant and DuraSeal® Exact Spine Sealant System with Standard Tip or Extended Tip Assembly & Use

The DuraSeal Dural Sealant System is intended for use as an adjunct to sutured dural repair during cranial surgery to provide watertight closure.

The DuraSeal Exact Spine Sealant System is indicated for use as an adjunct to sutured dural repair during spinal surgery to provide watertight closure.

### Kit Components







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Plunger Cap

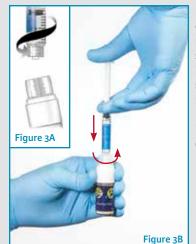


### **Extended Tip Applicator**

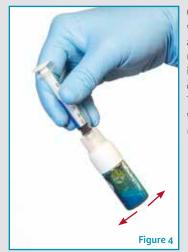
The Extended Tip Applicator combines the versatility of a malleable manual applicator with extended reach and added visibility. A special tip allows users to pause and resume spraying of the sealant during application.

# **Step 1:** Preparation





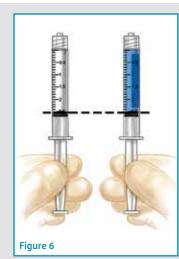
Remove syringe cap from blue precursor syringe. Screw blue precursor syringe onto powder vial (Figure 3A), then inject syringe contents into vial (Figure 3B).



Gently shake vial/syringe assembly until powder is completely dissolved. The solution will turn blue (Figure 4).



Invert vial/
syringe
assembly,
then draw vial
contents back
into syringe
(Figure 5A).
Unscrew syringe
from vial and
discard vial.
(Figure 5B).



Remove syringe cap from clear precursor syringe. Prior to applicator assembly, eliminate bubbles from both syringes and ensure precursor volume in two syringes is equal (Figure 6).

### Step 2: Assembly for Extended Tip Applicator (Figures 7, 8, 9)

(Figures 7, 8, 9)
or Dual Liquid
Applicator

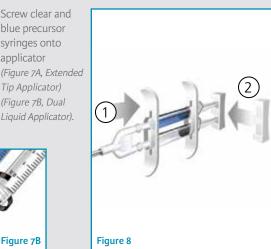


(Figures 7A, 8, 9A)

blue precursor syringes onto applicator (Figure 7A, Extended Tip Applicator) (Figure 7B, Dual Liquid Applicator).

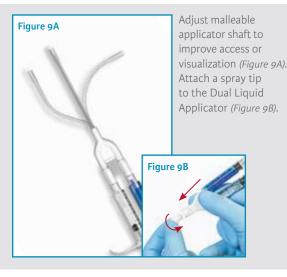
Figure 7A

Figure 7B



holder (Figure 8-1) along syringe barrels until it fits snugly against syringe flanges. Attach plunger cap (Figure 8-2) to syringe plungers.

Slide syringe



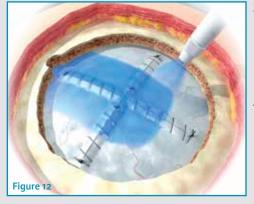






- Prepare application site by removing all blood clots and fluid.
- 2. While in surgical field, whenever anatomically possible, briefly spray sealant on gauze and without interrupting flow move to the target site (Figure 10).





- 3. Position applicator tip 2-4 cm from the target site, depress syringes using strong, even pressure (Figure 11, 12).
- 1. Using a continuous motion, apply an even, approximately 1-2 mm thin coating of hydrogel.



- Warning: Applicable laws restrict these products to sale by or on the order of a physician.
   Consult product labels and inserts for any indication, contraindications, hazards, warnings, precautions, and instructions for use.

### For more information or to place an order, please contact:

United States, Canada, Asia, Pacific, Latin America

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## DuraSeal® Dural Sealant and DuraSeal® Exact Spine Sealant System with MicroMyst® Applicator Assembly & Use

The DuraSeal Dural Sealant System is intended for use as an adjunct to sutured dural repair during cranial surgery to provide watertight

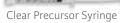
The DuraSeal Exact Spine Sealant System is indicated for use as an adjunct to sutured dural repair during spinal surgery to provide watertight closure.

### **Kit Components**











Plunger Cap



### For Precise, Controlled Delivery

The MicroMyst<sup>®</sup> applicator is a multi-lumen cannula with a filtered air line that is used in conjunction with the Flow Regulator for controlled, airassisted application.

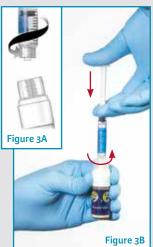
Provides a fine mist for a precise application

- 14 cm provides extended reach
- Shaft can be bent to improve visualization
- 3.3 mm cannula diameter



Figure 1

Depress threaded fitting of vial cap (Figure 1). Ensure red line is no longer visible (Figure 2).



Remove syringe cap from blue precursor syringe. Screw blue precursor syringe onto oowder vial (Figure 3A), then nject syringe contents into vial (Figure 3B).

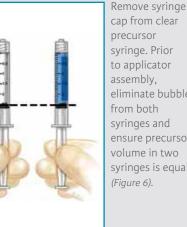


Gently shake vial/syringe assembly until powder is completely dissolved. The solution will turn blue (Figure 4).



Invert vial/ syringe assembly, then draw vial contents back into syringe (Figure 5A).

> Unscrew syringe from vial and discard vial. (Figure 5B).



syringe. Prior to applicator eliminate bubbles syringes and ensure precursor volume in two syringes is equal

### Step 2: MicroMyst® **Applicator Assembly**





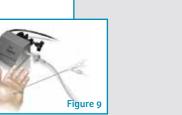
Ensure the Flow Regulator is connected to a compressed air or Nitrogen source (Figure 7).

Confirm the nitrogen source is set to 50 - 200psi.



Connect MicroMyst applicator line to Flow Regulator (Figure 8).

Ensure air is flowing through MicroMyst applicator (Figure 9).

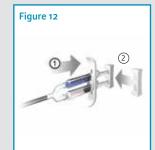






Position syringe holder over applicator fittings (Figure 10).

Screw clear and blue precursor syringes onto applicator (Figure 11).



Slide syringe holder (Figure 12-1) along syringe barrels until it fits snugly against syringe flanges. Attach plunger cap (Figure 12-2) to syringe plungers.

Adjust malleable applicator shaft to improve access or visualization (Figure 13).

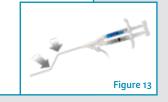


Figure 6





Flow Regulator

Availability of these products might vary from a given country or region to another, as a result of specific local regulatory approval or clearance requirements for sale in such country or region

- Non contractual document. The manufacturer reserves the right, without prior notice, to modify the products in order to improve their quality.
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### For more information or to place an order, please contact:

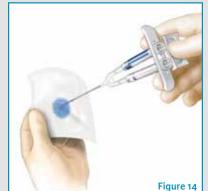
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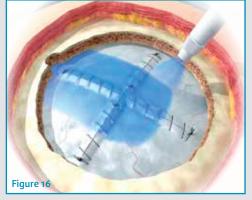
Integra LifeSciences Corporation Plainsboro, NJ 08536 - USA

## Final Step: Application



- . Prepare application site by removing all blood clots and fluid.
- While in surgical field, whenever anatomically possible, briefly spray sealant on gauze and without interrupting flow move to the target site (Figure 14).





- . Position applicator tip 1-4 cm from the target site, depress syringes using strong, even pressure (Figure 15, 16).
- 1. Using a continuous motion, apply an even, approximately 1-2 mm thin coating of hydrogel.

