

Is the gelatin transparent?

Yes, clarity is less than 25 ntu.

Can the gelatin be re-used?

NO! Used blocks are discarded.

How many test shots per block?

5 test shots. (1 in each corner and 1 in the center of the block)

What are the dimensions of the test block?

Blocks used in testing of conventional pistol ammunition are approximately 6.25" x 6.25" x 16".

How much gelatin do I use?

The mixture is 10% by weight. The mentioned research shows that properly calibrated, 10% ballistic ordnance gelatin is a reliable tissue simulant.

VYSE® - GELATIN INNOVATIONS has been assisting and serving the needs of the firearms industry for more than 20 years. We offer and stand by our high quality products at an economical price.

Ballistic gelatin is made for the sole purpose of testing or analyzing ordnance.

It should not be used for any other purpose.

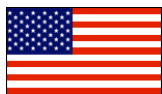
This product should be used only by industry professionals who are trained in the proper use of firearms and performed in a licensed facility.

Testing should never be done outside as ordnance may ricochet. The gelatin is not designed to, nor can it stop all calibers and / or types of ammunition.

A proper shooting lab type background should be used. All the proper safety equipment and precautions should be implemented before any shot is discharged.

No one, unfamiliar with ballistic gelatin should try this without the assistance of a trained professional.

An American Owned Company



VYSE® - GELATIN INNOVATIONS

5024 North Rose Street
Schiller Park, IL 60176 U.S.A.

VYSE® Professional Grade Ballistic & Ordnance Gelatin

10 lb box	\$90.00
25 lb pail	\$180.00
50 lb (2 @ 25 lb)	\$330.00
100 lb drum	\$600.00
4 ounce De-foamer	\$ 18.00
Corrugated Mold w/2 Liners (6W" x6H" x18L")	\$8.00

Plus shipping & IL sales tax if applicable

Material Safety Data Sheet (MSDS) on gelatin & De-foamer will be enclosed in the shipment

We accept Visa & Master Card
Prices are subject to change without notice.

Complete Trial Pack

VYSE® Professional Grade Ballistic & Ordnance Gelatin

Includes:

De-foamer
Pre-measured gelatin
Mold & Liners to make 3 blocks

Delivered anywhere in the continental U.S. for
\$90.00 (IL sales tax where applicable)

Phone: 800-442-8263

Fax: 800-442-0487

sales@bestgelatin.com

www.gelatininnovations.com

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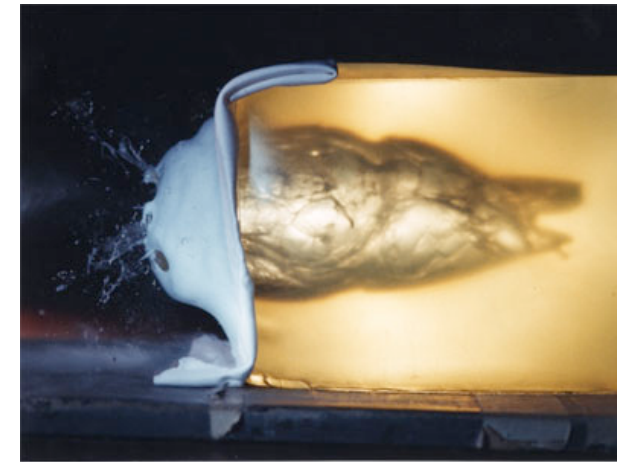


VYSE®

GELATIN INNOVATIONS

VYSE® Professional Grade Ballistic & Ordnance Gelatin

The Clear Difference



VYSE® Professional Grade Ballistic & Ordnance Gelatin is specially formulated to simulate human body density. Other brands on the market are made and sold for food applications. **VYSE®** has made a commitment to this highly specialized market. Through the many years that we have been doing this, we have changed the specification. We have learned that a typical food grade gelatin will not provide the consistent results required for this kind of scientific study.

VYSE® Professional Grade Ballistic & Ordnance Gelatin has the narrowest specification tolerance in the industry. Our gelatin so closely mimics human organ density that medical universities & hospitals use it to calibrate ultra sound and imaging equipment.

The mixture of 10% by weight. The mentioned research shows that properly calibrated 10% ballistic / ordnance gelatin is a reliable tissue simulant. Calibration of **VYSE®** Professional Ballistic & Ordnance Gelatin is verified by firing a .177 steel BB at 590 feet per second (fps), plus or minus 15 fps, into the gelatin, resulting in 8.5 centimeters (cm), plus or minus 1 cm, penetration (2.95" - 3.74"). During FBI tests, any gelatin blocks which fail the calibration test are discarded. Calibration results are not published due to the Pass / Fail nature of the test.

Fast & Easy Instructions for a 20 lb Block

- 1) Weigh out exactly 2 lbs of **VYSE®** Professional Grade Ballistic Ordnance Gelatin powder and place in a 1 gallon zip lock bag.
- 2) Add 4 lbs of filtered tap water, 45-75°F temperature range.
- 3) Eliminate the air while sealing the bag quickly. Gently mix the contents. **NOTE:** The contents of the bag will become very stiff within 10 minutes. Refrigerate the bag if it will not be used within 2 hours. The shelf life of the bag in the refrigerator is 72 hours.
- 4) Heat 15 lbs of filtered water to 140°F.
- 5) Using a clean 5 gallon bucket with a lid, place the bucket without the lid on a scale. **NOTE** the weight or tare of the bucket.
- 6) Break up and place the contents of the bag into the clean 5 gallon bucket.
- 7) Add 2.5 ml of de-foamer on top of the mix.
- 8) Place the bucket on the scale and carefully add 14 lbs of heated, filtered water (140°F) into the bucket until you have exactly 20 lbs of mixture. **Remember** to account for the weight of the bucket if the scale has not been tared.
- 9) Gently stir the mixture for 30 seconds.
- 10) Place the lid on tightly. Gently stir for 30 seconds every 15 minutes for the first hour. Let stand for 2-4 hours.
- 11) After cooling the mixture for 2-4 hours, slowly pour mixture into mold and place in refrigerator. A household refrigerator will take approximately 72 hours for the block to set properly.
- 12) **Note:** Do not open refrigerator often. Doing so will bring the inside temperature down. A commercial refrigerator will cool the block faster. Allow curing for 36 hours (Note: Larger blocks require longer cure time. (e.g. an 80 lbs block requires 96 hours to cure)

Optional Instructions - When adding warm water, only add 13 lbs (step 8) and gently stir. After 1 hour, solution should be completely dissolved. Add 1 lb of crushed ice, stir until ice has completely melted. Pour into mold and refrigerate as instructed.

Blocks, over time, deteriorate and are temperature sensitive. Former FBI publications advocated utilizing blocks within 20 minutes of removal from the refrigerator, a general statement pertaining to ambient temperature indoors.

Allowable time outside the refrigerator is, however, relative to the temperature of the test environment. (e.g. a block removed from a refrigerator and maintained in a room at the same temperature as the refrigerator will retain its calibration significantly longer than one placed outside on a hot summer day).

Conduct tests in an environmentally controlled shooting laboratory. The blocks of gelatin should be removed from the refrigerator and checked for calibration. Only valid blocks are used for test.

Note: Some authorities believe mixing procedures may vary the consistency of the gelatin. F.B.I. studies indicate however, that a block which displays the required level of penetration, within the required velocity range, is a "valid" tissue simulant.

Information about Gelatin

- The momentary cloudiness can be caused by air bubbles while mixing.
- Gelatins gelling strength will degrade with heat over time.
- Gelatin will sink to the bottom of the pot and burn upon heating.
- Gelatin will only dissolve in hot water. (140°F)
- Gelatin is a light amber color when it is completely dissolved.

Ballistic / Ordnance Gelatin Users

- U.S. Military
- Law Enforcement / F.B.I.
- Medical Universities & Hospitals
- Gun Manufacturers
- Ammunition Developers
- Forensic Labs

For **VYSE®** Professional Ballistic & Ordnance Gelatin mixing instructions used by the F.B.I. please visit our website www.VYSE.com

There are four main points for you to look at when buying ordnance gelatin.

SOLUBILITY: The gelatin must dissolve into a solution quickly. If it takes too long, you may run the risk of over mixing. This can cause excessive foam and depending on the type of mixer, it can chop up or break down the protein chains that form the gel.

BLOOM: Is the measure of gel strength. This is critical, if it is off, so will your test results be. Bloom is measured on a Texture Analyzer. (as seen below) 250 Bloom is the standard however; a typical food specification is +/- 10 grams. This is fine for the gelatin desserts or candy, but not for ballistics or ordnance testing. We have narrowed that down to 250 +/- 5 grams



VISCOSITY: This will determine how fast a gel block will set or gel. It will determine how fast it will melt during testing. We have imposed a 46 mps as a minimum in our specification. The food grade equivalent would be 42 +/- 4 mps. That would simply be unacceptable for consistent testing.

CLARITY: This is critical in determining your results. If you cannot see it, you cannot report it. Our gelatin is run through high pressure ultra filtration, the same type used for filtering fine wine. Our clarity limit is 25 ntu. Anything higher is sold to the food industry.