

LIPIODOL[®] RESISTANT Syringes

Ethyl ester of iodized fatty acids of poppy seed oil



UNBREAKABLE | USER-FRIENDLY | SHARP

Guerbet | 

LIPIODOL® RESISTANT syringes



1mL SYRINGE

Reference: QIT001



3mL SYRINGE

Reference: QIT002



20mL SYRINGE

Reference: QIT003



BENEFITS



Lipiodol® Resistance

Up to 24h^{1,2}



Safety

Reduce liquid exposure²



Easy to use

User friendly

1. Internal Test Report E17-41 (2017)

2. Internal Test Report E20-13 (2020)

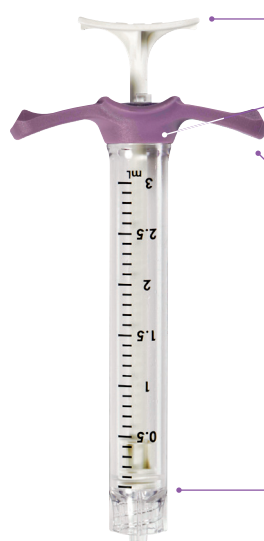


LIPIODOL® RESISTANT 1 ml & 3 ml Syringes

Lipiodol® resistance



- ✓ Lipiodol® 24H resistance ^{1,2}
- ✓ Prevent leakage ²
- ✓ Pressure resistance ²
- ✓ Ergonomic design



Plunger

Ergonomic design for optimal grip and easy injection

Backstop (Patented)

Prevents accidental release

Rotary finger support

Obtain more suitable working position

• O-ring design – Sealing function

• Elimination of the elastic zone

Tactile feedback improvement, direct transmission of forces from hand to liquid

Luer lock

1. Internal Test Report E17-41 (2017)

2. Internal Test Report E20-13 (2020)



LIPIODOL® RESISTANT 20 ml Syringes

Lipiodol® resistance



- ✓ Lipiodol® 24H resistance ^{1,2}
- ✓ Prevent leakage ²
- ✓ Pressure resistance ²
- ✓ Ergonomic design



Plunger

Ergonomic convex shape, rotatable, atraumatic for the palm & fingers

Backstop (Patented)

Prevents accidental release

Rotary finger support

Adjustable working position after connection

• O-ring design – Sealing function

• Elimination of the elastic zone

Tactile feedback improvement, direct transmission of forces from hand to liquid

Luer lock

1. Internal Test Report E17-41 (2017)

2. Internal Test Report E20-13 (2020)



Performance of LIPIODOL® RESISTANT 1 ml Syringe

Pressure resistance test

1ml SYRINGE



Performance of LIPIODOL® RESISTANT 20 ml Syringe

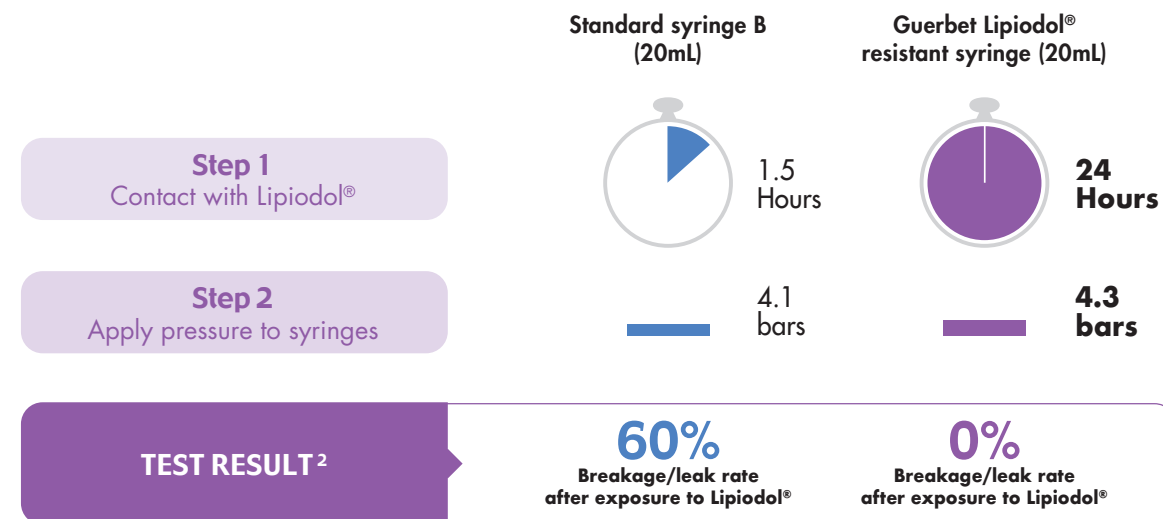
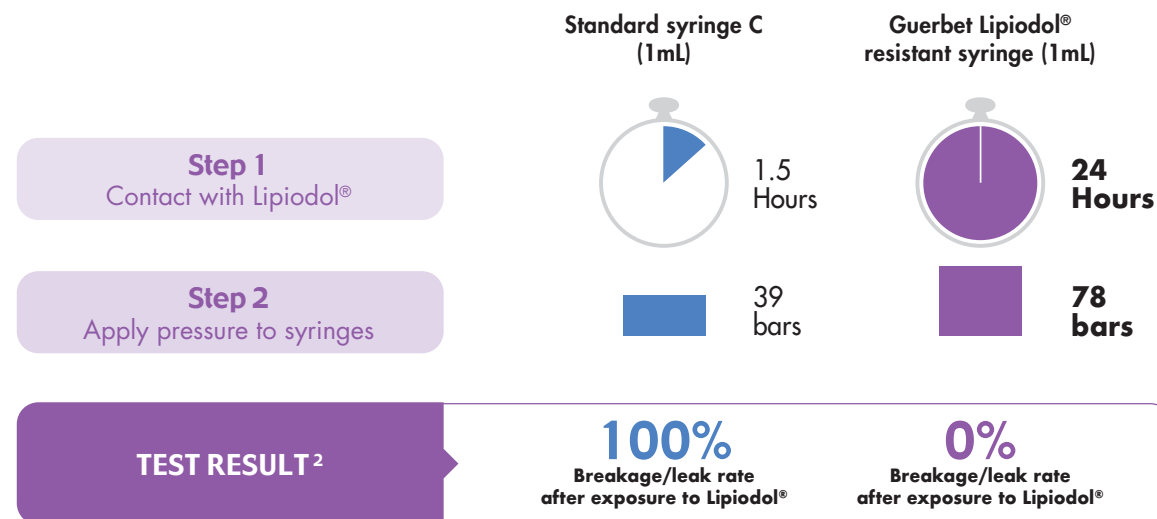
Pressure resistance test

20ml SYRINGE



Breakage/leak rate test – Lipiodol® resistant 1 mL syringes VS standard syringes

Breakage/leak rate test – Lipiodol® resistant 20 mL syringes VS standard syringes



**LIPIODOL® RESISTANT SYRINGES CAN RESIST HIGHER PRESSURE THAN
STANDARD SYRINGES AFTER EXPOSURE TO LIPIODOL®**

2. Internal Test Report E20-13 (2020)

2. Internal Test Report E20-13 (2020)



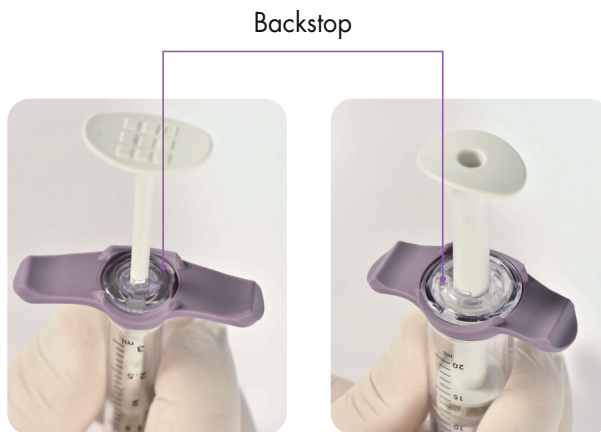
Performance of LIPIODOL® RESISTANT Syringes

Prevent liquid exposure



Anti-ejection design in Lipiodol® resistant syringes

- The backstop in Lipiodol® resistant syringes (1mL/3mL/20mL) avoids the exposure & ejection of plunger from the syringes



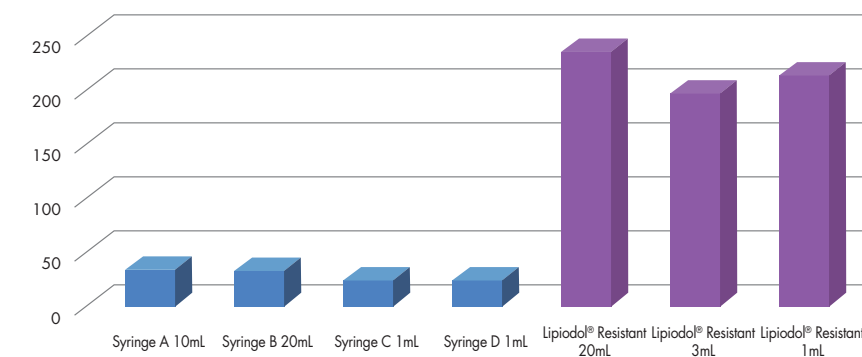
Guerbet Lipiodol® resistant syringes (1mL/3mL/20mL)

SYRINGES



Performance test of backstop

Traction on plunger (N)



TEST RESULT ²

Backstops make Guerbet Lipiodol® resistant syringes holding around **200 N** of traction. The standard syringes can just hold less than **35 N**.

GUERBET LIPIODOL® RESISTANT SYRINGES CAN REDUCE THE RISK OF LIQUID EXPOSURE & PLUNGER EJECTION

2. Internal Test Report E20-13 (2020)

LIPIODOL® Specifications Maintained



- **Lipiodol® standard production specifications:** **Absorbance:** 420nm: ≤ 0.60 ; 460nm: ≤ 0.50
Acid value: $\leq 1.0\text{mg KOH/g}$

Lipiodol® batch #	Time of contact	Absorbance		Acid value ($\leq 1.0\text{mg KOH/g}$)
		420nm (≤ 0.60)	460nm (≤ 0.50)	
Lipiodol® batch 15LF604A	24H	0.25	0.14	0.7
Lipiodol® batch 16LU604A		0.19	0.10	0.5
Lipiodol® batch 14LU607A		0.28	0.17	0.6

TEST RESULT³

Lipiodol® remains under its specification limits after 24H of contact with Guerbet Lipiodol® resistant syringes.

3. Internal Test Report 2_17_00401-1.0(2017)vr

Features & benefits

Features	Benefits
<p>► Lipiodol® Resistant & Unbreakable</p>	<ul style="list-style-type: none"> • Safety – Closed system to reduce risks of leakage² • Swiftness – No devices break & no devices change
<p>► Ergonomic & User-Friendly</p> <ul style="list-style-type: none"> ✓ Syringe backstop ✓ Rotary finger grip ✓ Optimized-handling 	<ul style="list-style-type: none"> • Safety – No syringe pull-back & no liquids projection • Accuracy – Easy-to-handle & sharp • Swiftness – Easy-to-inject • Convenience – Ready-to-use

2. Internal Test Report E20-13 (2020)

Precautions For Use

SYRINGES



Apply pressure:

Apply axial controlled pressure on the syringe's plunger to avoid uncontrolled injection and damage to the device.

Injection:

Plunger of 1 mL syringe should not be pushed by both hands

Connection with luer lock:

All Luer connections should be gently hand tightened without over tightening to ensure their security and to prevent damage to the device

Guerbet LIPIODOL® RESISTANT syringes patents



- **Backstops** in Lipiodol® resistant syringes **PATENTED**
- **Ergonomics** for Lipiodol® resistant syringes **PATENTED**

Lipiodol® resistant syringes are medical devices intended for use by healthcare professionals only.

Intended use: Single use syringe, intended for injecting fluids into the body, manually, during procedures using Lipiodol® Ultra Fluid

For complete information about precautions and optimal usage conditions, we recommend consulting the instruction for use supplied with the device or by your local Guerbet representative(s). For use only in countries with applicable health authority registrations

Class Is/CE

GMED 0459

Manufacturer: Medex

References

1. Internal Test Report E17-41 (2017)
2. Internal Test Report E20-13 (2020)
3. Internal Test Report 2_17_00401-1.0(2017)

Check Lipiodol® Ultra Fluid
summary of product information at:

