André industrial

Special Coatings & Sealants for Defence

Defence Coatings

Ammo Coatings

Ammo Sealing

Sealants & Adhesives

2027

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AMMUNITION SEALANTS & COATINGS

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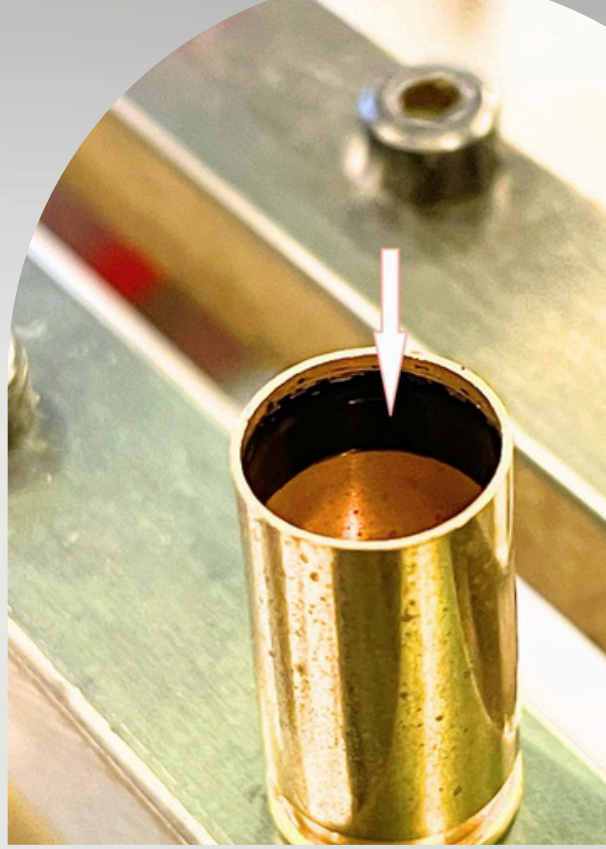
CASE MOUTH VARNISH



Product description

Bitumen and solvent based varnish, one-layer varnish.
Sealing between the cartridge case neck and the bullet
-case mouth sealing-.

Properties:	air drying, drying time adjustable starting from 4min
Application:	sealing between cartridge case neck and the bullet accordings NATO AEP-97
Colours:	black
Gloss:	glossy (DIN EN ISO 2813-2)
Packing units:	1, 2, 5, 10, 20 ,25 kg drums

Technical datas

Total solids:	40% (spraying); 50% (brushing)
Density / 20°C:	approx. 0,85 - 1,0 g/cm³
Viscosity:	30-50 sec DIN 4mm cup (DIN53211)
Flash point:	27 °C , 80 °F (DIN EN ISO 1523)
Temperatur resistance:	-55 °C to 220 °C (-67 °F to 428 °F)

Approved according:
NATO AEP-97
STANAG 4147
MIL-C-450
MIL-C-13783
TL8010-22 (German Army)

Product USP

Drying time adjustable up from 4 min, long shelf life guarantee according NATO AOP-4172 chapter 19a and AEP-97 Vol 13 climatic storage test (-55 °C) passed all bullet pull-out strength tests (ISO10123) passed the watertightness test according AEP-97 for all calibre sizes.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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PRIMER VARNISH

Product description

Solvent based nitrocellulose one-layer varnish.

Properties:	air drying within 2 minutes
Application:	sealing the primer groove
Colours:	red, green, blue, pink, clear, fluorescent as option for inline inspection
Gloss:	high gloss
Packing units:	1, 2, 5, 10, 20, 25 kg drums

Technical datas

Total solids:	24% (depending on colour, adjustable)
Density / 20°C:	approx. 0,9 g/cm³
Viscosity:	30-90 sec DIN 4mm cup (DIN53211)
Flash point:	-8°C - 50°C (DIN EN ISO 1523), 17 °F to 122 °F

Product USP

Drying time adjustable, long shelf life guarantee according NATO AOP-4172 chapter 19a and AEP-97 Vol 13 climatic storage test (-55 °C, -67 °F) passed the Watertightness test according AEP-97 for all calibre sizes. Different RAL colours and fluorecent for optical inline inspection.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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EXTERNAL SEALANTS

Product description

Our external sealants provide reliable sealing of bullets and primers. An anaerobic, UV-curing sealant (2-curing mechanism) is injected by Andre AdJet valve. Low viscosity and surface tension ensure complete gap penetration with immediate curing by UV lights.
The system is compatible with standard sealing machines without parameter changes.
Dosage is controlled by pneumatic pressure and jet timing. Multiple grades are available for different calibers, including tight or complex clearances (e.g. 0.50 BMG, tracer).
Very high yield: 1 liter can seal up to 1.4 million rounds of ammunition.

All sealants comply with AEP-97 water tightness requirements and are fully compatible with propellant powders per STANAG 4147.

Product USP

The USP of our colored sealants is the avoidance of pigments, which prevents the sealants from clogging the application valves. Shaking before use and inline-filter are no longer necessary.
Only 2 hazard pictograms.
Reach and PFAS conform.

Key Considerations for Selecting the Ideal ammuntion external sealant:

When selecting the right sealant, there are critical criteria that are essential for optimal sealing of the projectile. There is a surface tension present between the different metal surfaces, which significantly affects the penetration of the sealant. Therefore, there are various sealant options that differ in the following ways:

1. The adhesive strength and the resulting bullet pull-out strength according to Nato AEP-97 (see diagram), which in turn affects the brittleness of the adhesive.

2. The viscosity and its associated property of better penetration into the gap. Special calibers, such as tracer, require adhesives with lower viscosity to ensure complete sealing.

3. The surface tension of the different materials of the projectile and casing, as well as the cleanliness of the casings. In some cases, this surface tension must be broken to ensure uniform penetration of the adhesive.

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EXTERNAL SEALANTS

Technical datas

Colours:	red, green, blue, black, clear
Fluorescent:	yes, blue or red under UV light for optical control
Drying:	anaerobic + UV-curing (2curing mechanism)
Drying time:	3 sec (3.5 W/cm² LED lamp)
Anaerobic fixture time:	< 2 min (brass)
UV tack free time:	< 3 sec
Full strength time:	18 hours
Viscosity:	5-15 cP (mPas)
Surface tension:	26-29 mN/m
Temperature range:	-55 to 210°C (-65 to 410°F)
Specific gravity:	0.92 to 1.04
Hardness, Shore A ASTM D2240:	27-64

The following table will help you find the right adhesive for your application.

Type	color	curing nm	viscosity mPas	Surface tension mN/m	Capillary flow test zero-gap, 4 cm rise height sec	Bullet pull-out strength N 5,56x45 7,62x51	Watertightness AEP-97
463N	clear	365	5-15	27	23,31	905-1080 924-1316	100% OK 100% OK
463N	red	365	5-15	28	24,03	910-1234	100% OK
463N	green	365	5-15	27	23,82	874-1022	100% OK
463N	blue	365	5-15	29	25,54	882-1123	100% OK

The standard formulation without pigments allows for a very versatile product, which can be used both for primer sealing and for floor sealing. The formulation has optimized surface tension properties and very good adhesive properties.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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SEALING EQUIPMENT

Components

AdJet valve

- changeable dispensing nozzles
- control cable socket
- directly connectable to the PLC
- fast response time
- push fitting
- easy to clean
- needle protection
- CE marking

AdJet controller board

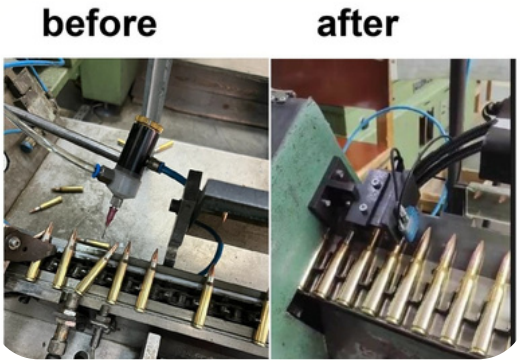
- 24VDC
- Cap rail 35
- RS232 interface
- Opening time <5ms
- Prevents valve burnout and excessive voltages from the PLC.

Andre UV lamps

- Air-cooled fan
- High-output LED for UV curing at 365 nm
- Optical Power 3.5 W/ cm²
- Integrated power regulation and over-temperature protection
- Green indicator for power and correct operation
- Red indicator for fault conditions with isolated output

Integration in existing machines

The individual sealing components allow for integration into existing systems. An independent PLC can be used without the need to interfere with existing controls.



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BLANK SEALANT

Product description

Blank ammo sealant has a higher viscosity, UV-curable compound formulated to provide high performance, fast curing and sealing of ammunition blank tips.
Dries even inside the sealant, not only on the surface.
5m distance paper witness test and burn-out test achieve perfect results. (tested on FN MAG and MINIMI)

Properties:
Application: sealing the blank top
Colours: red, green, blue, clear

Technical datas

Chemical Type:	Modified Acrylic Ester
Appearance:	Coloured, fluorescent
Viscosity:	600-800 cP (25°C)
Density:	1,01
Drying Time:	3-5 sec (tack-free)
Durometer Hardness:	70-80 Shore D

Product USP

The Andre Blank sealant cures very well even beneath the surface (up to 2.8mm). Standard UV lights (365nm with 2W/cm²) can be used.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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AMMUNITION TIP-ID INK

Product description

This system involves the marking of the tips of projectiles with specific colors or patterns to indicate the type of ammunition and its intended purpose. By understanding and recognizing these markings, users can ensure they are using the correct type of ammunition for their specific needs.

Properties:	Fast-drying ink
Application:	marking the top of bullets by ink-jet printing head.
Colours:	all colours

Technical datas

Chemical Type:	Solvent based ink
Appearance:	Coloured
Viscosity:	5-20 cP (25°C)
Density:	1,01
Drying Time:	3-5 sec (tack-free) on air

TIP-ID DIPPING COATING

Product description

Chemical Type:	Solvent based coating
Appearance:	Coloured
Viscosity:	15-30 s (DIN4mm)
Drying Time:	2-3 min

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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ANTIFRICTION VARNISH

Product description

Solvent based antifriction varnish.

Properties:	oven drying, 140-200°C for 20 min (390 °F)
Application:	exterior of steel or brass cartridges
Colours:	clear, different colours available
Gloss:	glossy
Packing units:	1, 2, 5, 10, 20, 25 kg drums

Technical datas

Total solids:	30-40%
Density / 20°C:	approx. 1,0 g/cm³
Viscosity:	25-30 sec DIN 4mm cup (DIN53211)
Flash point:	-27°C (DIN EN ISO 1523), 80 °F

Product USP

Some types of ammunition, such as the FN 5.7 mm rounds, are modified with a non-stick coating. This coating is applied to enhance the performance of the ammunition by reducing friction and improving feeding reliability in firearms. The non-stick finish helps prevent the buildup of residue and fouling, which can occur during firing. As a result, this modification can lead to smoother operation, increased accuracy, and easier maintenance of the firearm. The use of non-stick coatings in ammunition is part of ongoing advancements in ammunition technology aimed at improving overall efficiency and effectiveness.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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STEEL CASE COATING BY KTL

Product description

Cathodically deposited electrodeposition coating based on epoxy resin.

Application: Corrosion-protection coating for metallic ammunition, particularly for industrial bulk-material and drum applications.
Colours: black, grey, olive-green

Technical datas

Dry film density:	approx. 1.32 g/cm³
Storage temperature:	5-30 °C; keep containers tightly closed
Solids content of supplied components:	Pigment component: 64 ± 1.5 wt.% Dispersion: 37 ± 2 wt.%
Bath solids:	approx. 12-16%
pH value:	5.2-5.7
Conductivity:	700-1600 µS

Processing

Bath temperature:	30-33 °C
Coating time:	60-300 s
Bath circulation:	At least 1 turnover per month
Thinning / equipment cleaning:	Demineralised water; conductivity of dilution water < 10 µS.

Curing

Typical process range:	Object temperature approx. 175-200 °C for approx. 20-30 minutes.
Process approval:	Actual curing conditions depend on part mass, geometry, oven characteristics and the desired property profile and must be validated by the customer.

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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DRUM COATING

Product description

Topcoat for metallic substrates withmultifunctional properties such as resistance to media and colour. It can also improve the corrosion protection provided by the basecoat

Application: Corrosion-protection coating for metallic ammunition.

The suitable application method generally depends on the geometry of the component. Immersion, spraying, dip-spin coating
.

Colours: olive-green and many other colours

Substrates: Steel, stainless steel, aluminium die-cast

Performance: Corrosion resistance, media resistance , mechanical stress, antifriction

Steel case coating

Technical datas

Dry film thickness: 4-20 µm
Storage temperature: 5-30 °C; keep containers tightly closed

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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MEDIUM CALIBER

Product description

Antifriction varnish for phosphorized steel cartridges to reduce friction values and avoit material crack. Interior coating for protection against propellant powder and corrosion.
Approved according TL8010.

Solvent based one-layer baking exterior varnish.

Properties: oven drying, high surface slip, anticorrosive, chemical resistance
Application: outside from phosphatiued steel cartridges
Colours: green, grey and many more
Gloss: flat / semi gloss

Technical datas

Total solids:	approx. 46%
Density / 20°C:	approx. 1,02 g/cm³
Viscosity:	50 - 60 sec DIN 4mm cup (DIN53211)
Flash point:	27°C
Temperatur resistance:	after drying through 250 °C short time stress 160 °C permanent stress

Application

Substrate pre treatment: clean from dirt and dust

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

Antifriction varnish

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MEDIUM CALIBER TOP COATING

Product description

Tip-Id coating.

Water based one-layer varnish

Properties: air drying
Application: Tip-Id of the bullets
Colours: FED-STD-595 or other colours
Gloss: flat / semi gloss

Technical datas

Total solids: approx. 45 %
Density / 20°C: approx. 1,02 g/cm³

Viscosity: upon request

Guideline values for drying:(75µm wet film thickness)
Dust dry: 15 – 20 min
Touch dry: 45 – 60 min
Fully dried: 24h

Application

Substrate pre treatment: clean from dirt and dust

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

Antifriction varnish

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PRIMER LACQUER

Product description

Nitrocellulose based lacquer protect over the foil and anvil of ammunition primer after anvil seating operation.

Technical datas

Chemical Type:	Nitrocellulose lacquer
Appearance:	red, green
Solid:	30 -35 %
Viscosity:	40-50 cP
Drying Time:	3-5 minutes

MIL-L-46075A Lacquer
TT-T266D Thinner

Primer lacquer

Special advices

Safety instruction: see material safety data sheet (MSDS)
Storage: when stored dry and cool, 1 year, closed drums longer

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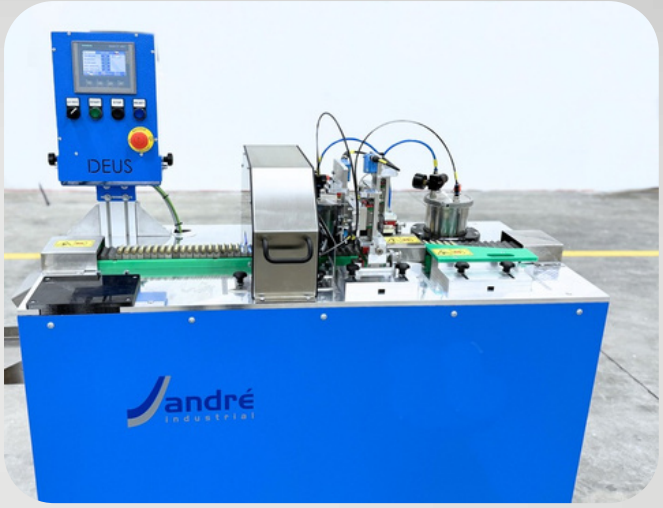
SEALING MACHINES

Table Sealing Machine

- Stand-alone for test trails
- Sealing of primer and bullet
- Product capacity 70 pcs/min
- Siemens PLC, micro tik support
- Remote access
- AdJet high precision valves
- 1.4x0.6x1.5 m, 130 kg
- CE marking and safety system



Dynamic Sealing Machine

- Product capacity 120 pcs/min
- Sealing primer and bullet by AdJet dispenser
- UV curing station
- Camery control
- Not OK eject station
- Siemens PLC
- CE marking

Primer Inserting + Sealing Machine

- Primer inserting and sealing station
- carousel machine - two rotating tables sealing process
- 250 pcs/min, 125 pcs/min each station
- remote control PLC + Micro Tik support
- Siemens, Festo
- CE marking

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