

Autoclear Energy Select LV

Autoclear Energy Select LV is an acrylic urethane clearcoat for use over Autowave and Autobase Plus which delivers outstanding results in both ambient and forced dry conditions. This clear provides excellent resistance to surface contamination through quick out-of-dust times, making it an ideal choice for air-dry environments. Offering brilliant gloss and built-in flex, Energy Select LV also complies with VOC regulatory requirements of 250 g/L.



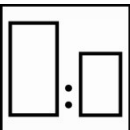
Safety Considerations

- Use suitable personal protection.
- When exposed to paint or solvents, AkzoNobel recommends the use of a fresh air supply respirator.



Suitable Substrates

- Autowave – After the TDS prescribed flash dry time.
- Autobase Plus – After the TDS prescribed flash dry time.
- Existing Clearcoat – Abraded with P1000 dry or a gray scuff pad, then cleaned.



STICK # 1

Mix

2
1

By Volume

Parts Energy Select LV Fast or Slow Clear
Part Energy Select LV Hardener

- ✓ LV250 Accelerator may be added at up to 15 ml per ready to spray quart



Spray-Gun Set-Up

- 1.3 – 1.5 mm HVLP Gravity
- 1.3 – 1.5 mm Compliant Gravity

Application Air Pressure

- HVLP – 10 psi (<0.7 bar) at cap, maximum.
- Consult manufacturer specifications.



Application

- 2 x 1 Coats (2 single wet coats)



Flash Between Coats at 70°F (21°C)

- 0 – 10 minutes.

Flash at 70°F (21°C) Before Low Temp Bake

- 5 – 10 minutes.



Air Drying at 70°F (21°C)

- Dry to Handle in 1 – 2 hours
 - ✓ Reference tables in the TDS.

Force Drying at 120°F (49°C) Ambient Temp

- Dry to Handle in 15 – 40 minutes
 - ✓ Reference tables in the TDS.

- *Dependent on film weight, air flow and Fast/Slow/Accelerated clear mixture*



Recoating

- Autoclear Energy Select LV can be recoated with itself after a full drying cycle. Sanding is necessary after 24 hours.

Read the complete TDS and the product Safety Data Sheet (SDS) for detailed product information.

Description

Autoclear EnergySelect LV is an acrylic urethane clearcoat for use over Autowave and Autobase Plus which delivers outstanding results in both ambient and forced dry conditions. This clear provides excellent resistance to surface contamination through quick out-of-dust times, making it an ideal choice for air-dry environments. Offering brilliant gloss and built-in flex, Energy Select LV also complies with VOC regulatory requirements of 250 g/L.

Suitable Substrates



- Autowave
- Autobase Plus
- Autoclear Energy Select LV
- Stable existing finishes
- After the TDS prescribed flash time
- After the TDS prescribed flash time
- Observe flash and recoat recommendations
- When properly sanded and cleaned

Products and Additives

- Product**
- Autoclear Energy Select LV Fast
 - Autoclear Energy Select LV Slow
 - Item # 527668
 - Item # 527670

- Hardeners**
- Autoclear Energy Select LV Hardener
 - Item # 527669

- Additives**
- LV250 Accelerator
 - LV Elast-O-Actif (soft parts only)
 - Sikkens High Temperature Additive
 - Item # 389353
 - Item # 398218
 - Item # 589142

Sikkens Autoclear Energy Select LV clearcoat includes flex chemistry and requires no further flex additives for flexible vehicle parts. However, if soft parts are being painted, flex additive should be used as described in the *Mixing* section of this document.

- SDS and TDS for products available online at – <http://my.anaac.net/>

Basic Raw Materials



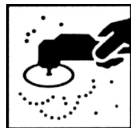
- Autoclear Energy Select LV (Fast or Slow)
- Autoclear Energy Select LV Hardener
- Additives
- Acrylic polyol
- Polyisocyanate resins
- Refer to specific additive product TDS

Substrate Preparation



Pre-Cleaning

- If needed pre-wash the repair with warm soap and water. Rinse completely with clean water.
- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant) or Antistatic surface cleaners.



Sanding Preparation

- Abrade existing clearcoat with #P1000 dry and a soft interface pad or use a gray scuffing pad with a quality scuffing paste and water.



Surface Cleaning – Prior to Paint Application

- Clean with M600 Surface Cleaner, Autoprep UltraPrep (VOC compliant) or Antistatic surface cleaners.

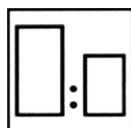
Mixing Products



Formulas

- Easy mixing of products, including hardening, reduction and the addition of additives can be accomplished by using MIXIT.

Mixing



BY VOLUME
STICK # 1

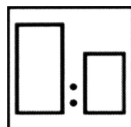
Mix

2
1

Standard Mix

- Autoclear Energy Select LV Fast or Slow
- Autoclear Energy Select LV Hardener

✓ Fast and Slow clearcoats can be mixed in order to accommodate spraying conditions and repair size.



BY VOLUME
STICK #1

Mix

2
1

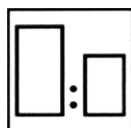
1% – 10%
(BY VOLUME)

High Temp / High Humidity Mix

- Autoclear Energy Select LV Slow
- Autoclear Energy Select LV Hardener
- High Temperature Additive

NOTE:

High Temperature Additive should only be used with Energy Select LV Slow clear and is not recommended for use at temperatures below 85°F (≈29°C).



BY VOLUME
STICK #1

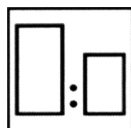
Mix

2
1

+7-15 ml
(MAXIMUM)

Accelerated Mix

- Autoclear Energy Select LV Fast or Slow
- Autoclear Energy Select LV Hardener
- LV250 Accelerator per ready to spray quart



BY VOLUME
STICK # 9

Mix

100
5-8

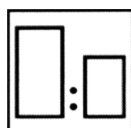
(BY VOLUME)

Flexed for Soft Parts Mix

Flexed Mix – Step #1

- Autoclear Energy Select LV Fast or Slow
- LV Elast-O-Actif

STIR, THEN MIX:



BY VOLUME
STICK # 1

Mix

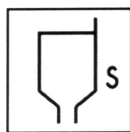
2
1

Flexed Mix – Step #2

- Autoclear Energy Select LV / LV Elast-O-Actif Mixture from **Step #1**
- Autoclear Energy Select LV Hardener

✓ Energy Select LV does not require flex additive for flexible parts. For severe service applications or soft foam parts, flexing is advised.

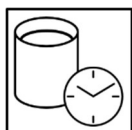
Viscosity – Ready to Spray at 70°F (21°C)



- Autoclear Energy Select LV Fast or Slow

At 70°F (21°C)
 – 14–16 Seconds

Pot-Life When Mixed



Product Mix

At 70°F (21°C)

- | | |
|---|-----------------|
| • Autoclear Energy Select LV Fast | – 1 hour |
| • Autoclear Energy Select LV Slow | – 1.5 – 2 hours |
| • Autoclear Energy Select LV Slow + 10% High Temp Additive | – 2 hours |
| • Autoclear Energy Select LV Fast, accelerated | – 45 minutes |
| • Autoclear Energy Select LV Slow, accelerated | – 1.5 hours |
| • Autoclear Energy Select LV Fast/Slow (50:50) | – 1.5 hours |
| • Autoclear Energy Select LV Fast/Slow (50:50), accelerated | – 1 hour |

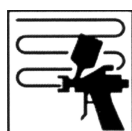
Spray Gun Set-Up

Consult spray gun manufactures instructions for specific spray gun pressure specifications.



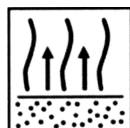
Spray Gun	Fluid Tip	Application Pressure
HVLP Gravity Feed	1.3 – 1.5mm	10 psi (<0.7 bar) at cap, maximum.
Compliant Gravity Feed	1.3 – 1.5mm	psi per spray gun manufacturer.

Application



- Apply 2 single flowing coats
 - If heavy sanding and polishing is required, a third coat may be applied after observing proper flash time.

Flash Drying



Flash Between Coats at 70°F (21°C)

- 0-10 minutes.

Flash at 70°F (21°C) Before Low Temp Bake

- 5-10 minutes.

- Flash time will be dependent on ambient temperature, applied paint wetness/thickness and available airflow.

Drying / Curing Time



Standard Mixtures

Ambient Temperature	70°F (21°C)		120°F (49°C)	
	Dust Free (minutes)	Dry (minutes)	Dust Free (minutes)	Dry (minutes)
Energy Select LV Fast	15 – 20	60 – 80	5 – 10	20 – 30
Energy Select LV Slow	15 – 20	80 – 110	5 – 10	30 – 40
Slow + 10% High Temp Additive	60	150	10	40
75 / 25 Fast / Slow	15 – 20	70 – 90	5 – 10	25 – 35
50 / 50 Fast / Slow	15 – 20	75 – 95	5 – 10	25 – 35
25 / 75 Fast / Slow	15 – 20	60 – 90	5 – 10	30 – 40



Accelerated Mixtures

Ambient Temperature	70°F (21°C)		120°F (49°C)	
	Dust Free (minutes)	Dry (minutes)	Dust Free (minutes)	Dry (minutes)
Energy Select LV Fast	15	40 – 60	5	10 – 15
Energy Select LV Slow	15	60 – 80	5	15 – 20
75 / 25 Fast / Slow	15	45 – 55	5	10 – 15
50 / 50 Fast / Slow	15	45 – 55	5	10 – 15
25 / 75 Fast / Slow	15	50 – 60	5	10 – 15

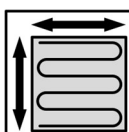
✓ Drying times are stated at recommended application method, film thickness, and ambient temperature. The dry times stated may increase with insufficient airflow.

Film Thickness – Using Suitable Application



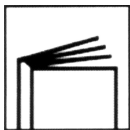
- 1 coat will achieve a thickness of 1.2 – 1.5 mils (30 - 38µm) dry.
- The minimum total thickness required is 2.4 mils (61µm) for adequate protection and appearance.

Theoretical Coverage



- With the recommended application the theoretical material usage is ±650 - 700 feet²/gallon (16 – 17 m²/liter) at a 1 mil thickness (25.4µm) and 100% transfer efficiency.
- Actual coverage is dependent on many factors which may include the shape of the object, surface smoothness, application technique, and other application variables

Recoating



- After a complete drying cycle, Autoclear Energy Select LV may be recoated with itself for up to 24 hours without sanding. After 24 hours, sanding becomes necessary.

Polishing



- Dust and minor damage can be polished out after 2 – 4 hours at 70°F (21°C) or after the stated low temperature bake time at 120°F (49°C) booth temperature followed by a cool down.

Decals and Lettering



- Small decals and adhesive stripes can be applied 48 hours (70°F (21°C)) after full cure.
- Hand painted striping or lettering must be applied within 48 hours for good adhesion. After 48 hours, scuff with a grey pad and clean before application.

Cleaning of Equipment



- Clean equipment and dispose of waste following local and federal regulations. In compliant localities, use a Sikkens Cleaning Solvent LV. For national rule regions, use Sikkens Cleaning Solvent.
- For efficient cleaning and less evaporated cleaning solvents, an enclosed automatic gun cleaning machine is suggested.

VOC / Regulatory Information



Product	VOC Pounds per Gallon	VOC Grams per Liter
<ul style="list-style-type: none"> • Energy Select LV (All Mixtures Ready to Spray) 	– ≤2.1	– ≤247
<ul style="list-style-type: none"> • Do not handle until the Safety Data Sheets have been read and understood. Regulations require that all employees be trained on Safety Data Sheets for all chemicals with which they come in contact. The manufacturer recommends the use of an air-supplied respirator when exposed to vapors or spray mist. 		

Product Storage



- Store unopened, or products in use with approved closed containers and proper labeling. Store in moderate temperatures between 40°F - 95°F (5°C – 35°C). Avoid too much temperature fluctuation. Optimum storage temperature is approximately 70°F (21°C).
- Refer to the Product Shelf Life Overview TDS or the current price list for the most up-to-date shelf-life information.



North America

Autoclear Energy Select LV

Technical Data Sheet

Clearcoats

03/15/2023

Page 7 of 7

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

AkzoNobel Inc., North America

Address: 1845 Maxwell Street – Troy, MI USA

Telephone: 800.618.1010

FOR PROFESSIONAL USE WITH SUITABLE HSE EQUIPMENT

IMPORTANT NOTE The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Safety Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

Coatings brand names mentioned in this data sheet are trademarks of or are licensed to AkzoNobel.

Head Office

AkzoNobel Car Refinishes B.V., PO Box 3, 2170 BA Sassenheim, The Netherlands. www.sikkenscr.com