



HOUSE DRESSING™ ROOF REJUVENATION

Plant-derived, reactive asphalt shingle rejuvenation treatment. Built on APEX 1132™ technology from SoyLei Innovative Products.

1 PRODUCT IDENTIFICATION

Product identifier	House Dressing; House Dressing Roof Rejuvenation. Also identified as APEX 1132, APEX 1132 Shingle, APEX 1132 Shingle Rejuv.
Common name	Epoxidized soybean oil emulsion
Product type	Concentrate — dilute before use
Substrate	Asphalt shingle, aged and structurally sound
Recommended use	Asphalt rejuvenation and maintenance. For professional application only.
Brand owner	DuraFlex Solutions 2810 48th Ave, Vernon, British Columbia V1T 3R4 Canada Tel: 780-268-9522
Manufacturer	SoyLei Innovative Products 5331 Harvest Road, Ames, Iowa 50014 USA Tel: 515-520-7600
Safety Data Sheet	HD-RR-001-US-EN, revision 08/25/2026. Read the SDS before handling. Where this sheet and the SDS differ, the SDS governs.

2 PRODUCT DESCRIPTION

House Dressing is a concentrated, chemically modified soybean oil emulsion engineered to react with and restore aged asphalt roofing shingles. It is **not a surface coating**. The emulsion penetrates the shingle and its reactive epoxide groups form covalent bonds with the aged asphalt binder, restoring flexibility and granule adhesion rather than temporarily softening the surface. Infrared spectroscopy, NMR and differential scanning calorimetry work at Iowa State University confirmed this reaction mechanism.

House Dressing is a **maintenance treatment for sound, aging roofs**. It is not a repair product and is not a substitute for replacing failed shingles, flashing or decking. See Section 11.

3 PHYSICAL PROPERTIES

Concentrate, as supplied

Appearance	Milky white to beige liquid	Relative density @ 25°C	1.04 g/cm ³
Odor	None to minimal	Viscosity @ 25°C, 50 s ⁻¹	200–1,000 cP
Solids content	60%	Water solubility	Complete
pH	Neutral	Flash point	315°C (599°F)
Biodegradable	Yes		

Values above are taken from Safety Data Sheet HD-RR-001, Section 9. The manufacturer's technical sheet lists specific gravity 0.98 and no flash point; those figures conflict with the SDS and are not reproduced here. The SDS also states viscosity as 0–200 cP without a shear rate. Confirm with the manufacturer before specifying to a viscosity or density figure.

4 MIXING AND COVERAGE

Dilution ratio	5 : 1 — five parts potable water to one part House Dressing concentrate
Application rate	200 ft² per gallon (4.9 m²/L) of diluted product
Yield per gallon of concentrate	approx. 1,200 ft² (111 m²) calculated: 1 gal concentrate + 5 gal water = 6 gal diluted — confirm with manufacturer
Pre-use conditioning	Stir concentrate 5–10 minutes before use. If dispensing from a hold tank, agitate before dispensing. Mix again after long storage if settling has occurred.
Transfer pumps	Centrifugal, gear or diaphragm pumps

5 SURFACE PREPARATION AND APPLICATION

INSPECT

- Confirm the roof is structurally sound
- Identify fall and traction hazards
- Disqualify roofs with storm damage or inadequate footing
- Verify shingles are candidates, not failures

PREPARE

- Clear all debris from the roof surface
- Repair damaged shingles and flashing first
- Clean gutters
- Surface must be fully dry at application

APPLY

- Backpack or pump-style sprayer
- Test spray pattern before starting
- Smooth, overlapping passes for uniform coverage
- Applies white; formulated to resist dripping

6 CURE SCHEDULE

At 70–80°F / 21–27°C, 50% RH

30 MIN

Tack free

1 HOUR

Foot traffic

1–2 HRS

Full cure

CONDITIONS AND TRACTION

- Do not apply if rain, strong wind or severe weather is expected during or after application.
- **Freshly treated shingles are slippery.** This is a hazard not otherwise classified on the SDS. Plan a safe exit route before spraying and avoid walking on treated areas.
- Cure times lengthen in cooler temperatures and higher humidity.

7 STORAGE AND HANDLING

Shelf life	6 months
Storage temperature	60–110°F (16–43°C)
Freezing point	32°F (0°C)

Packaging	1 gal (3.8 L) jug · 5 gal (19 L) pail · 55 gal (208 L) drum · 275 gal (1,041 L) tote · tanker (45,000 lb / 20,400 kg)
Compatible materials	Carbon steel, 304/316 stainless steel, polyethylene, PVC, CPVC
Protect from	Freezing. Keep container tightly closed in a dry, well-ventilated place.
Incompatible materials	Strong oxidizing agents. Strong mineral acids.

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HEALTH AND SAFETY SUMMARY

SDS HD-RR-001 governs



GHS05



GHS07

DANGER

H318 Causes serious eye damage

H317 May cause an allergic skin reaction

Classification	Serious eye damage, Category 1. Skin sensitization, Category 1.
Required PPE	Face shield or safety glasses. Protective gloves, inspected before use. Avoid breathing mist or spray.
Additional site PPE	Fall protection harness and high-grip footwear, per the manufacturer's application guidance.
Acute toxicity	Oral LD50 (rat) 24 g/kg and dermal LD50 (rabbit) 20 g/kg, both classified practically non-toxic. The eye and sensitization hazards above still apply to the concentrate.
Full hazard information	This is a summary only. Safety Data Sheet HD-RR-001-US-EN, revision 08/25/2026, governs all handling, hazard and first-aid information.

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PERFORMANCE DATA

Independent third-party laboratory testing, 2020–2024

PROPERTY	METHOD	UNTREATED	TREATED	REPORT
Granule loss, aged shingles	ASTM D4977	13.2%	7.1–8.0%	2024
Granule adhesion, dry	ASTM D4977	0.95%	0.24%	2020, at 200 ft²/gal
Granule adhesion, wet	ASTM D4977	3.38%	1.90%	2020, at 200 ft²/gal
Pliability, temperature at failure	ASTM D3462	55°F (13°C)	35–45°F (2–7°C)	2021
Pliability, aged shingles	ASTM D3462	–3°C	–6°C	2024
Tear strength, machine direction	ASTM D288	4.3 N	4.9–5.1 N	2024
Tear strength, cross direction	ASTM D288	3.9 N	4.5 N	2024
Spread of flame, max spread	UL 790 / ASTM E108	44 in (112 cm)	14–29 in (36–74 cm)	2021 · limit 72 in
Spread of flame, aged deck	UL 790 / ASTM E108	53 in (135 cm)	34–44 in (86–112 cm)	2024 · limit 72 in
Flexural strain before cracking, aged 3-tab	3-point bend	5.9%	8.7%	Iowa State University

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ENVIRONMENTAL AND LEACHATE TESTING

2024 report

Total PAHs	Below detection limit	Sulfates	Below detection limit
Total PCBs	Below detection limit	Leachate pH	6.6
Chlorides	Below detection limit	Volatiles, EPA 24	0.02%

11 LIMITATIONS

- House Dressing is a maintenance treatment, not a repair product. It does not correct storm damage, active leaks, failed decking or structural problems.
- It does not restore shingles that are already missing, broken or significantly deteriorated, and does not change the chronological age of a roof or any insurance rating, warranty or classification applied to it.
- In the 2021 and 2024 third-party reports reviewed for this sheet, impact testing to FM 4473 / UL 2218 did not produce a passing result for treated or untreated specimens. The manufacturer reports a passing result on other specimens. House Dressing does not confer an impact rating and does not change an existing one — confirm the applicable test report before making any impact-related claim.
- In the 2024 report, burning brand testing to ASTM E108 did not produce a passing result for treated or untreated specimens. The spread-of-flame results in Section 9 are not a fire classification.
- Initial darkening of the shingle surface occurs and diminishes with weathering.
- Test values are laboratory results on specific shingle samples under controlled conditions. Field results vary with shingle type, age, condition, pitch, exposure and climate.

12 RELATED DOCUMENTS, PATENTS AND RESEARCH

Safety Data Sheet	HD-RR-001-US-EN, revision 08/25/2026
Patents	US-10570286-B2 · US-10604655-B2 · US-10961395-B2 · US-11773265-B2 · US-12297150-B2
Patent assignment	US-12297150-B2, "Maintenance treatments useful for improving the performance of aged or brittle resinous binders in paving or roofing," is assigned to the Iowa State University Research Foundation. Other issued or pending patents apply. Any rights not expressly granted are reserved.
Underlying research	Iowa State University, Department of Chemical & Biological Engineering, with support from the Regents Innovation Fund of the State of Iowa.
Performance testing	Independent third-party laboratory testing across three report cycles, 2020, 2021 and 2024. Full reports available on request.