

Fully Adhered EPDM Roofing JHA

Worked instructional example

Work and worksite

A roofing crew will install a specified fully adhered EPDM membrane on a released low-slope roof using the system's adhesive and seam products. This fictional learning example records planned controls; it supplies no actual inspections or work authorization.

- Substrate support, moisture condition, material loading and installation documents are released.
- The actual adhesive and primer hazards determine ventilation, ignition control and exposure protection.
- This excludes TPO/PVC heat welding, torch roofing and roof insulation installation.

Questions before work

- What confirms substrate readiness and permitted material loading?
- Which adhesive and primer hazards affect roof and building occupants?
- How will large membrane sheets be controlled in the actual wind conditions?

Task Hazard Control

1 Accept the roof and system

Hazard: An unsuitable substrate or overloaded roof can cause installation failure or collapse.

Control: Supervisor confirms support, substrate release and the specified membrane, adhesive and seam system. Hold wet, damaged or unapproved substrate conditions.

Verification: Compare actual materials and roof conditions with the installation documents.

Reasoning: A membrane label does not establish substrate readiness.

2 Establish protected access and material zones

Hazard: Workers can fall or trip while moving rolls and sheets.

Control: Maintain the planned fall, opening and access protection and stage loads only at released locations. Keep exits and drainage clear.

Verification: Lead checks access and material zones before delivery to the work area.

Reasoning: Roof loads and pedestrian routes must remain controlled together.

3 Prepare chemical application

Hazard: Adhesive or primer can expose workers to vapor, skin contact or ignition.

Control: Review each product label and SDS and use the specified ventilation, ignition and protective measures. Address intakes and building occupancy; open only the needed containers.

Verification: Lead confirms product controls and exposure response before use.

Reasoning: Water-based and solvent-based products may require different measures.

Complete the work and hand over

4 Unroll and position membrane

Hazard: Large sheets can catch wind, pull workers or obstruct a protected route.

Control: Use a coordinated handling method, limit exposed sheet area to what can be controlled and secure material by the system method. Stop when wind defeats control.

Verification: Leader checks sheet movement and crew positions continuously.

Reasoning: The membrane's surface area changes the handling exposure.

5 Apply adhesive and complete seams

Hazard: Wet adhesive, cutting tools and kneeling work can cause contact injury, slips or strain.

Control: Follow product application and flash-off instructions with protected working positions, safe cutting and workable pacing. Maintain fall protection and keep others out of the wet application area.

Verification: Lead checks product method, footing and seam readiness against system instructions.

Reasoning: The JHA provides no universal flash-off time.

6 Secure products and release access

Hazard: Residual product, uncured seams or loose sheets can expose the next shift.

Control: Close and secure chemicals, collect compatible waste and identify cure, access and weather restrictions. Maintain protection until the roof is handed over by the designated authority.

Verification: Supervisor checks containers, sheet security and actual completion status.

Reasoning: A finished-looking membrane may still have product restrictions.

Pause and reassess

- System products, substrate or adhesive method changes.
- Wind, vapor control, occupancy or footing changes.
- Roof loading or fall/opening protection is uncertain.

Improve the controls

Needs improvement: Be careful around the equipment.

More useful: Review each product label and SDS and use the specified ventilation, ignition and protective measures. Address intakes and building occupancy; open only the needed containers.

Needs improvement: Check the area before starting.

More useful: Supervisor confirms support, substrate release and the specified membrane, adhesive and seam system. Hold wet, damaged or unapproved substrate conditions.

Decisions that change the analysis

What membrane systems does this example cover?

It covers the specified fully adhered EPDM system. TPO/PVC heat welding, mechanically attached membranes and other methods introduce different equipment and operating conditions and require their own analysis.

What must be recorded before this example is used on a job?

Replace the scenario with the actual work, identify additional hazards with the crew, and record the applicable instructions, responsible people, inspection findings, unresolved actions and required authorization. A planned verification is not an inspection result.

Training needs

- Actual membrane, adhesive and seam-system instruction.
- Chemical hazards, large-sheet handling and roof fall protection.

Confirm applicable qualifications and actual training evidence for the people assigned. Related toolbox talks support discussion; they do not establish competence.

References and adaptation

OSHA Protecting Roofing Workers

<https://www.osha.gov/sites/default/files/publications/OSHA3755.pdf>

OSHA 1910.1200 Hazard communication

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1200>

OSHA 1926.59 Hazard communication in construction

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.59>

OSHA 1926.501 Duty to have fall protection

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.501>

OSHA 1926.503 Fall protection training

<https://www.osha.gov/laws-regs/regulations/standardnumber/1926/1926.503>

References reviewed October 9, 2026. Use actual equipment and product instructions, project design and site requirements. This instructional example supplies no actual inspection results, signatures or work approval.