Oxidized Bitumen Membrane Procurement & QC Checklist

Use this checklist before quotation approval, supplier qualification, pilot production and commercial release. The binder grade is not technically accepted until the finished membrane meets its applicable standard.

1. Define the finished membrane

■ End use identified: roof top layer / intermediate layer / underlayer / damp-proofing / below-grade / felt / mastic / other.

■ Applicable product standard, local adoption and required edition recorded.

■ Service limits documented: maximum heat, minimum temperature, slope, UV, water pressure, movement and protection layer.

■ Application method defined: torch, hot-applied, cold-adhered, self-adhered, mechanically fixed or built-up.

2. Binder purchase specification

Property	Required range / method	Supplier offer / COA	Approved
Softening point			■
Penetration at 25°C			■
Viscosity at process temperature(s)			■
Flash / fire point basis			■
Solubility / ash / insolubles			■
Loss on heating / volatility			■
Density / specific gravity			■
Other critical property			■

3. Supplier documentation and traceability

■ Current TDS and SDS received; test methods and tolerances are explicit.

■ Representative COA reviewed; batch-specific COA will accompany every shipment.

■ Manufacturer, production site, country of origin, product identity and batch code confirmed.

■ Written change-notification requirement agreed for feedstock, process, formulation or manufacturing site.

■ Packaging, net weight, palletization, contamination controls, storage and reheating instructions approved.

■ Retention-sample and complaint-investigation process agreed.

4. Compatibility and pilot production

Check	Acceptance evidence	Status
Melting / transfer / filtration	No abnormal foaming, sediment, blockage or temperature excursion	■
Blend compatibility	No separation; stable viscosity and mixing torque during the intended residence time	■
Carrier impregnation	Uniform wetting with no dry zones, wrinkles or thermal damage	■
Coating control	Repeatable thickness / mass across the web at target line speed	■
Cooling / rolling	No blocking, deformation, edge flow or unacceptable core temperature	■
Storage stability	Approved roll shape and compound behavior after defined conditioning	■

5. Finished-membrane release tests

Characteristic	Standard / method	Requirement	Result
Watertightness			
Low-temperature flexibility			
Flow resistance at elevated temperature			
Tensile strength / elongation			
Tear resistance			
Peel resistance of joints			
Shear resistance of joints			
Dimensional stability			
Impact / static-load resistance			
Thickness / mass per unit area			
Aging / durability requirement			
Fire or other declared characteristic			

6. Commercial and logistics closeout

- ■ Technical approval is signed before commercial confirmation.
- ■ Incoterm, delivery schedule, packaging form and unloading method are compatible with plant capability.
- ■ Quantity tolerance, claim period, sampling method and independent-test mechanism are contractually defined.
- ■ Shipment documents include invoice, packing list, origin documents, COA, SDS and any required compliance documents.
- ■ Receiving site has approved storage capacity, heating controls, transfer equipment and emergency procedures.

7. Red flags - stop approval and investigate

Red flag	Why it matters
Supplier quotes only a grade name	Commercial notation does not define viscosity, safety, compatibility or finished-sheet performance.
Test method is missing or changed	Results from different methods or conditions may not be directly comparable.
COA exactly repeats nominal values	May indicate insufficient batch-specific reporting or traceability.
Pilot run needs major temperature increase	May create safety, fume, aging or equipment-limit problems.
Binder passes but sheet fails	Approval must follow the finished membrane; reformulate or change the binder window.
Unannounced feedstock or site change	Can alter viscosity, compatibility and production consistency even when headline values remain similar.

Approval record: Supplier _____ Product / grade _____ Trial batch _____ Approved formulation _____ Reviewer _____ Date _____

Safety: follow the current supplier SDS, equipment limits and applicable occupational/fire regulations. Never derive a safe operating temperature from softening point. Standards and legal requirements may change; confirm the current edition and local adoption before use.