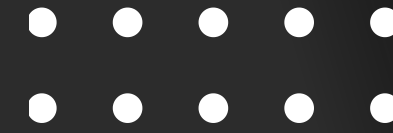


3MB VS CEMENT

**PERFORMANCE, COST
AND ENVIRONMENTAL COMPARISON**



ABOUT 3MB

3MB (Modified Macro Molecular Binder) is a **water-soluble, non-asphaltic, non-polymer**, biodegradable and environmentally safe soil stabilizer designed to strengthen soils, waterproof subgrades, and reduce dust. It is applied cold, does not require heating, compatible with fresh or sea water, and works across sand, clay, and recycled asphalt (RAP).



STRENGTHS OF 3MB

3MB achieves traffic-ready strength within 24–36 hours — significantly reducing project downtime compared to cement stabilization (7–28 days).

ENHANCES CBR AND COMPRESSIVE STRENGTH OF SOILS

REDUCES AGGREGATE TRANSPORTATION NEEDS

FAST DRYING TIME (24–36 HOURS)

COST SAVINGS OF 20–30% IN LABOR AND MATERIALS

NON-TOXIC, BIODEGRADABLE, AND ENVIRONMENTALLY FRIENDLY

COMPATIBLE WITH STANDARD EQUIPMENT AND REQUIRES NO HEATING

EFFECTIVE IN SAND, CLAY, RAP, AND EXPANSIVE SOILS

CERTIFIED UNDER ASTM/AASHTO STANDARDS

PRIMARY USES OF 3MB

ROAD BASE
STABILIZATION

HELIPADS AND
AIRSTRIPS

SLOPE & EMBANKMENT
STABILIZATION

CANAL AND DITCH
LININGS

BIKE PATHS AND
WALKING TRAILS

CONSTRUCTION PADS
AND FOUNDATIONS

DUST SUPPRESSION

AGRICULTURAL ROADS

DRIVEWAYS AND
PARKING LOTS

RETAINING WALL
BACKFILL

RAILWAY SUBGRADES

RECYCLED ASPHALT
REJUVENATION (RAP)



3MB VS CEMENT:

KEY COMPARISON

ASPECT	3MB	CEMENT
MATERIAL COMPOSITION	ORGANIC BINDER, BIODEGRADABLE	PORTLAND CEMENT, MINERAL BINDER
APPLICATION PROCESS	COLD APPLIED WITH WATER, NO HEATING REQUIRED	REQUIRES MIXING, CURING, FORMING
DRYING/CURING TIME	24–36 HOURS	SEVERAL DAYS TO WEEKS
LABOR & EQUIPMENT	MINIMAL, STANDARD EQUIPMENT	HIGH LABOR AND SPECIALIZED EQUIPMENT
ENVIRONMENTAL IMPACT	LOW CO2, NO RUNOFF, BIODEGRADABLE	HIGH CO2, ENVIRONMENTAL RUNOFF RISK
COST PER M ³ (EST.)	\$68–\$79	\$125–\$150
FLEXIBILITY	REDUCES CRACKING, FLEXIBLE UNDER STRESS	PRONE TO CRACKING, RIGID
SHELF LIFE	1+ YEAR IF STORED ABOVE FREEZING	STABLE IF KEPT DRY
DISPOSAL	SAFE DISPOSAL; NON-HAZARDOUS — RESIDUALS CAN REMAIN IN SOIL OR BE DILUTED WITH WATER	CONCRETE WASTE MUST BE REMOVED, BROKEN UP, AND DISPOSED OF IN DESIGNATED LANDFILLS OR RECYCLED CENTERS
BIODEGRADABLE	YES, FULLY BIODEGRADABLE AND CERTIFIED ORGANIC	NO; CEMENT IS NOT BIODEGRADABLE AND MAY CONTRIBUTE TO LONG-TERM ENVIRONMENTAL IMPACT

ESTIMATED 3MB VOLUMES

The following estimates are based on a 1-kilometer road, 7 meters wide, using various application depths:

BIKE PATH (2.1M WIDE, 2" THICK)

106.7 cubic m. mix | ~575 gallons 3MB

LOW USE (2" LAYER)

373.1 cubic m. mix | ~2,015 gallons 3MB

MID USE (4" LAYER)

746.2 cubic m. mix | ~4,030 gallons 3MB

HIGH USE (FULL-DEPTH 8" STABILIZATION)

~1,400 cubic m. | ~10,000 gallons 3MB



HOW TO ACHIEVE THE BEST RESULT

- Soil Testing for each application is performed to accomplish the greatest result
- CBR results significantly improved through proper soil testing





THANK YOU

WE APPRECIATE YOUR ATTENTION, WE HOPE THIS
INFORMATION IS USEFUL FOR A MORE
SUSTAINABLE FUTURE.

 www.aeonms.com

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