

PRO-ROAD® Cold Mix — Cold Mix Asphalt

Stockpiled cold patching mix · Ready to use · 22.5 kg (49.6 lb) bag

Manufactured under the guidelines of Article 457-22 of the INVÍAS 2022 General Road Construction Specifications (Colombia) — stockpiled premixed asphalt for patching of asphalt pavements

1. Description

PRO-ROAD® Cold Mix is a ready-to-use cold mix asphalt designed to repair potholes, cracks, utility cuts and pavement edges without heating, without heavy equipment and with immediate opening to traffic. It is manufactured with high-quality crushed stone and sand and 60/70 penetration-grade asphalt cement modified with vegetable-based additives that keep the mix workable at ambient temperature. It contains no hydrocarbon solvents.

In plain words: it is asphalt in a bag. Open it, pour it into the hole, level it and compact it. It works for professional road maintenance crews and just as well for anyone who needs to fix a hole in their driveway, parking lot, warehouse yard or residential complex today.

2. Applications

- Pothole patching on urban, rural and suburban roads; emergency repairs and routine maintenance.
- Reinstatement of utility cuts: water, sewer, gas, power and telecommunications trenches.
- Sealing of wide cracks, pavement edges, transitions and joints around manhole covers, drains and rails.
- Parking lots, driveways, sidewalks, bike paths, walkways and paved sports areas.
- Repairs on asphalt pavement and, with the surface preparation described in the Terms and Conditions of Use, on concrete.

It is not designed as a structural layer, for paving large new areas, or for correcting base or subgrade failures (settlement, pumping of fines, presence of water). In those cases the patch is a temporary solution until the underlying repair is carried out.

3. Specifications

3.1 Mix properties

Property	Test method (international reference)	Typical value
Marshall stability	INV E-748 (ASTM D6927)	3.5 kN (790 lbf)
Flow	INV E-748 (ASTM D6927)	2 – 4 mm
Air voids	INV E-736 / E-799	4 – 8 %
Nominal maximum aggregate size	INV E-123 (ASTM C136)	3/8" (9.5 mm)
Tensile strength ratio (TSR), moisture susceptibility	INV E-725 (AASHTO T283)	> 80 %
Compacted mix density (informative)	—	1.9 – 2.2 g/cm ³
Binder	—	60/70 pen. asphalt cement, additivated
Appearance / colour	—	Granular, black

3.2 Aggregate properties

Property	Test method (international reference)	Value	INVÍAS Art. 457-22 requirement (NT1)
Los Angeles abrasion loss	INV E-218 (ASTM C131)	< 25 %	max. 25 %
Micro-Deval abrasion loss	INV E-238 (ASTM D6928)	< 25 %	max. 25 % (NT2 / NT3)
Magnesium sulfate soundness loss	INV E-220 (ASTM C88)	< 18 %	max. 18 %
Impurities in coarse aggregate	INV E-237	< 0.5 %	max. 0.5 %
Plasticity index	INV E-125 (ASTM D4318)	NP	NP
Sand equivalent	INV E-133 (ASTM D2419)	> 50 %	min. 50 %
Fractured faces (one face)	INV E-227 (ASTM D5821)	> 75 %	min. 75 %

Property	Test method (international reference)	Value	INVÍAS Art. 457-22 requirement (NT1)
Flat and elongated particles (5:1)	INV E-240 (ASTM D4791)	< 10 %	max. 10 %

Values are determined according to the INVÍAS (Colombia) test methods; the ASTM/AASHTO methods listed are the closest international references and are given for guidance only. Mix values are typical job-mix-formula results and may vary by batch within production tolerances. The Marshall stability is that of a 3/8" cold patching mix; for works contracted under Article 457-22 (which requires a minimum stability of 5,000 N at traffic level NT1) or under any other specification, the contractor must verify the applicability of the product and the project requirements with the engineer. Values guaranteed per batch are certified in the corresponding quality certificate.

4. Coverage and thickness

One 22.5 kg (49.6 lb) bag covers approximately **0.21 m² (2.3 sq ft) at 5 cm (2 in) compacted thickness** — a hole of about 45 × 45 cm (18 × 18 in). Coverage depends on the final compacted thickness, the shape of the hole and the degree of compaction.

Compacted thickness	Coverage per bag	Bags per m ² (approx.)	Example: 50 × 50 cm (20 × 20 in) hole	Example: 1 × 1 m (3.3 × 3.3 ft) hole
4 cm / 1.6 in (minimum)	0.26 m ² / 2.8 sq ft	4	2 bags	4 bags
5 cm / 2 in	0.21 m ² / 2.3 sq ft	5	2 bags	5 bags
7.5 cm / 3 in	0.14 m ² / 1.5 sq ft	7	2 bags	7 bags
10 cm / 4 in	0.10 m ² / 1.1 sq ft	10	3 bags	10 bags
12.5 cm / 5 in	0.09 m ² / 1.0 sq ft	11	3 bags	11 bags
15 cm / 6 in	0.07 m ² / 0.75 sq ft	14	4 bags	14 bags

Quick rule to estimate how many bags you need: bags ≈ length (m) × width (m) × depth (cm). Always round up and buy 10 % extra. Example: a hole 0.6 m × 0.4 m and 8 cm deep → 0.6 × 0.4 × 8 = 1.9 → 2 bags. (In inches: bags ≈ length (ft) × width (ft) × depth (in) × 0.24.)

Minimum compacted thickness: 4 cm (1.6 in) (INVÍAS Art. 457-22, clause 457.4.7). If the hole is shallower, deepen it and square its edges to 4 cm. **Holes deeper than 5 cm (2 in): fill in lifts of maximum 5 cm, compacting each lift.** Before compacting, leave the loose mix 1 to 1.5 cm (about 1/2 in) above pavement level: it settles to grade when compacted.

5. Directions for use (summary)



1. CLEAN



2. POUR & LEVEL



3. COMPACT

- Clean** the hole: remove loose material, debris, mud, leaves and standing water. Edges should be sound and, where possible, vertical.
- Prime (recommended for durability):** apply an asphalt emulsion tack coat to the bottom and walls of the hole with a brush or roller and wait until it turns from brown to black (breaks). Without a tack coat the repair is considered temporary.
- Pour and level** the mix straight from the bag, in lifts of maximum 5 cm (2 in), leaving it 1 to 1.5 cm above pavement level. Cover the edges well.
- Compact** with a hand tamper, plate compactor, roller or, for small repairs, by driving over it repeatedly with a vehicle's tyres. Compact from the edges towards the centre so the mix does not shove.
- Open to traffic** immediately. The mix keeps gaining strength under traffic and as it cures over the first days.

The detailed procedure, application conditions, warnings and warranty conditions are set out in the product's Terms and Conditions of Use (PRG-TYC-01), which must be read before application.

6. Storage and transport

- Keep the bag closed, in a dry place, under cover or in the shade and at ambient temperature (ideally around 25 °C / 77 °F). Avoid contact with water and soil, and keep away from heat sources or sparks.
- Shelf life: 12 months** from the manufacturing date printed on the bag, in the sealed package and under the stated conditions.
- Once opened, the mix remains workable for several days if the bag is closed again and protected from moisture.
- Hardening of the product inside the closed bag (due to cold or storage time) is a normal condition of the product, not a defect.** Opening the bag, pouring out the material and turning it over with a shovel restores its looseness; in cold weather, leaving the bag in the sun for an hour or two before use helps.
- Transport on pallets, protected from rain and away from sharp objects that could puncture the bag. Not classified as dangerous goods for transport (no UN number).

7. Packaging and logistics

Item	Detail
Packaging	22.5 kg (49.6 lb) net sealed bag, with printed directions for use and a QR code linking to the technical data sheet and the Terms and Conditions.
Identification	Batch number and manufacturing date printed on every bag. Keep the label for any claim.
Handling	Palletised and stretch-wrapped for storage and shipping. Ask your sales representative for pallet and container configurations.
Reference tariff classification	HS 2715.00 (bituminous mixtures based on asphalt). Depending on composition and use it may fall under HS 2517.30 (tarred macadam); confirm with the customs authority of the country of destination.
Origin	Made in Colombia.

8. Quality control

Every batch is produced under a quality control plan covering the aggregates (gradation INV E-123, Los Angeles abrasion INV E-218, soundness INV E-220, impurities INV E-237, fractured faces INV E-227 and flat and elongated particles INV E-240) and the mix (residual asphalt content INV E-732, Marshall stability and flow INV E-748 and moisture susceptibility INV E-725). On request, the batch quality certificate can be supplied and additional tests or third-party inspection (SGS, Bureau Veritas, Intertek, Cotecna) can be arranged at origin or destination.

Read the Safety Data Sheet (PRG-MSDS-02) and the Terms and Conditions of Use (PRG-TYC-01) before handling and applying the product. Keep out of reach of children.

The information in this document is provided in good faith, based on PRO-ROAD®'s technical knowledge of its products and on the standards cited. It does not constitute a sales specification or a guarantee of results. The user is responsible for verifying the suitability of the product for the intended use, for its correct handling and for its application in accordance with PRO-ROAD®'s instructions and the project specifications. Values guaranteed per batch are certified in the corresponding quality certificate.