



REINFORCED CONCRETE - FLOORS FOR HOSPITAL BUILDINGS

System for the construction of lightweight bidirectional floors with high seismic performance ideal for hospital buildings



REINFORCING BARS, STEEL AND IRON FOR HOSPITAL STRUCTURES



Bitumen	Bitumen	30/40
Bitumen	Bitumen	40/50
Bitumen	Bitumen	50/60
Bitumen	Bitumen	60/70
Bitumen	Bitumen	80/100
Bitumen	Bitumen	85/100
Bitumen	Bitumen	100/120





8 mm- 10 mm- 12 mm- 14 mm- 16 mm 32 mm



Materials Required to Build a Hospital

1. Structural Works

- Reinforced concrete
- Structural steel
- Ready-mix concrete
- Gravel and sand
- Reinforcement steel bars
- Formwork systems
- Structural mortars

2. Walls and Partitions

- Clay bricks or concrete blocks
- Drywall panels (hospital-grade)
- Fire-resistant panels (REI rated)
- Thermal insulation materials
- Acoustic insulation materials
- Antibacterial plaster and coatings

3. Roofing and External Envelope

- Flat or pitched roof systems
- Waterproof membranes
- Thermal insulation for roofs
- Ventilated facade systems
- External cladding (metal, glass, ceramic panels)

4. Doors, Windows, and Openings

- Automatic sliding doors
- Fire-rated doors
- Airtight hospital windows
- Laminated safety glass
- Panic bars and emergency hardware

8. Clinical and Specialized Areas

- Modular sterile panels for operating rooms
- Hermetic doors
- HEPA air filtration systems
- Lead-shielded walls for radiology areas

9. Fixed Furniture and Equipment

- Hospital beds
- Built-in cabinets
- Nurse stations
- Handrails
- Wayfinding and safety signage

10. Safety and Control Systems

- Video surveillance systems
- Access control systems
- Nurse call systems
- Emergency lighting

11. External Areas

- Asphalt or external paving
- Ramps and curbs
- Canopies
- Landscaping and outdoor furniture

12. Interior Finishes

- Vinyl or rubber hospital flooring
- Conductive flooring for operating rooms
- Antibacterial wall coverings
- Ceramic wall tiles
- Suspended and inspectable ceilings
- Non-toxic, washable paints

13 Plumbing and Sanitary Systems

- Cold and hot water piping
- Drainage and sewage pipes
- Medical-grade faucets
- Sanitary fixtures
- Anti-legionella systems

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BITUME 30/40

Caratteristica	Metodo	Unità	Valore
Penetrazione (25°C)	EN 1426	0,1 mm	30 – 40
Punto di rammollimento (R&B)	EN 1427	°C	55 – 63
Duttilità (25°C)	EN 13398	cm	≥ 50
Punto di infiammabilità	EN ISO 2592	°C	≥ 240
Solubilità	EN 12592	%	≥ 99,0
Densità (25°C)	EN ISO 3838	g/cm ³	≈ 1,01 – 1,05



BITUME 40/50

Caratteristica	Metodo	Unità	Valore
Penetrazione (25°C)	EN 1426	0,1 mm	40 – 50
Punto di rammollimento	EN 1427	°C	50 – 58
Duttilità (25°C)	EN 13398	cm	≥ 50
Punto di infiammabilità	EN ISO 2592	°C	≥ 240
Solubilità	EN 12592	%	≥ 99,0



BITUME 50/60

Caratteristica	Metodo	Unità	Valore
Penetrazione (25°C)	EN 1426	0,1 mm	50 – 60
Punto di rammollimento	EN 1427	°C	48 – 56
Duttilità (25°C)	EN 13398	cm	≥ 100
Punto di infiammabilità	EN ISO 2592	°C	≥ 230





CEMENT 42.5 R is a composite cement with a **42.5 strength class** and **high early strength**, manufactured in accordance with **EN 197-1**.

It is suitable for structural and non-structural applications in hospital and healthcare facilities, where reliability, durability, and consistent performance are required.

Composition

CEMENT 42.5 R consists of the following main constituents:

Clinker: 40% – 64%

Ground granulated blast furnace slag: 18% – 30%

Natural pozzolana: 18% – 30%

Minor additional constituents: max. 5%

The above percentages do not include additions of **calcium sulfate** or **processing additives**, which are used to regulate setting time and improve performance.



TECHNICAL DATA SHEET (TDS)

HIGH SULFATE-RESISTANT CEMENT (UNI 9156:2015)

Product description

This cement contains **at least 95% clinker** with a **tricalcium aluminate (C3A) content $\leq 5\%$** .

Any secondary constituents, when present, do not exceed **5%** by mass.

The declared composition **does not take into account the addition of calcium sulfate** used as a setting time regulator.

Classification

In compliance with **UNI 9156:2015**, this cement is classified as:

High sulfate-resistant cement

Main characteristics

- High resistance to sulfate attack
- Suitable for structures exposed to aggressive sulfate environments
- Low C3A content to improve durability and chemical stability

Composition (excluding setting regulator)

- **Clinker:** $\geq 95\%$ ($C3A \leq 5\%$)
- **Secondary constituents:** $\leq 5\%$

Reference standard

- **UNI 9156:2015 – High sulfate-resistant cement**

