



Properties	<p>P-RMS 42.5 ChB BTNa is a Portland cement with some special characteristics. It maximizes the clinker composition and has a low alkalis content, a moderate Sulphate resistance as also a low heat of hydration. It is characterized by a very low standard deviation, and high usage predictability.</p> <p>This cement generates less heat than Ordinary Portland Cement. A low heat of hydration is desirable when concrete is placed in massive structures such as large piers or abatements. Excessive temperature rise in such structures can cause cracking.</p> <p>This cement in addition to its low content of alkalis has a moderate resistant to sulfate attack. It is used for concrete construction with sulfate exposure, typically where concrete will be in contact with soils or groundwater containing high sulfate levels or in structures where concrete will be exposed to sulfates. It provides improved durability for concrete as also reduces the risk of deterioration of the structure and structural failure.</p> <p>A properly designed concrete for use in aggressive environments needs to have an appropriate cementitious content, a low water: cement ratio, and be well compacted and cured. It is recommended that specialist advice be obtained during the project design stage to ensure that the concrete is adequate for the expected service.</p>
Conformity to Norms	Portland cement P-RMS 42.5 ChB BTNa conforms to Lebanese Norms NL 53:1999 and to international norms as ASTM Type II C 150 -92 & EN 197-1 CEM I
Mechanical Requirements	<p>The conformity of the compressive strength is verified according to EN 196 -1</p> <ul style="list-style-type: none"> o The Compressive Strength at 2 days shall be ≥ 12.5 N/mm² o The Compressive Strength at 28 days shall be ≥ 42.5 N/mm² and ≤ 62.5 N/mm²
Specific Properties	<ul style="list-style-type: none"> o High Strength at 28 days o Normal setting o Low Alkali Equivalent ($\leq 0.6\%$) o Low heat of hydration (≤ 250 j/g) (according to NL 53:1999) – With Low C3A, C3S & High C2S o Moderate Sulfate Resistance (according to NL 53:1999) o Dark Color
Principal Applications	<ul style="list-style-type: none"> o Concrete for marine works (P-RMS 42.5 ChB BTNa: Resistance to Sulfate) o Concrete to aggressive environment (P-RMS 42.5 ChB BTNa : Resistance to Sulfate) o Concrete where aggregates are sensible to alkalis reactions (P-RMS 42.5 ChB BTNa: Low Alkalis Content) o Concrete for massive Works (P-RMS 42.5 ChB BTNa: Low Heat of Hydration) o Precast Concrete
Quality Control	SCS laboratory performs continual (24h/24h) control on chemical, physical, and phases analysis of the fabricate and delivered Cement, It is equipped with state of the art technology and is certified to ISO 9001:2015 Sibline Laboratory is certified and audited by IRI and BUREAU VERITAS.
Instructions for Use	<ul style="list-style-type: none"> • Special caution is advisable when casting concrete below 5 °C and above 40 C. • For fresh concrete avoid quick drying out by protecting the surfaces against wind and sunlight by covering or wetting.
Safety Precautions	<p>Portland cement is a light gray powder that poses little immediate hazard. A single short-term exposure to the dry powder is not likely to cause serious harm. However, exposure to wet Portland cement can cause serious, potentially irreversible tissue (skin or eye) destruction in the form of chemical (caustic) burns or an allegoric reaction. The same type of tissue destruction can occur if wet or moist areas of the body are exposed for sufficient duration to dry Portland cement.</p> <p>Users should avoid eye contact, skin contact, inhalation, and ingestion.</p>