SANDHYAFLEX

ISO 9001:2015 certified company

Cover Block

TECHNICAL DATASHEET

SANDHYAFLEX Cover Block is a precision-engineered reinforcement support and spacing system designed to maintain the specified concrete cover between reinforcing steel bars and formwork in reinforced concrete structures. Manufactured using high-quality concrete compounds, engineering-grade polymers, and advanced moulding technologies, these cover blocks provide excellent load-bearing capacity, dimensional accuracy, durability, and long-term structural reliability in construction applications.

Designed to ensure proper reinforcement positioning and uniform concrete cover, Sandhyaflex Cover Blocks help protect reinforcement steel from corrosion, moisture penetration, carbonation, fire exposure, and environmental deterioration. The product range includes concrete cover blocks, PVC cover blocks, wheel spacers, rebar spacers, and specialized reinforcement support systems widely used in residential buildings, commercial structures, bridges, flyovers, metro projects, industrial facilities, water-retaining structures, and infrastructure developments.

SANDHYAFLEX INDIA PVT LTD has established itself as a trusted manufacturer and supplier of quality construction and reinforcement support products in India. Utilizing advanced manufacturing processes, precision moulding technology, and carefully selected raw materials, Sandhyaflex Cover Blocks are designed to provide consistent performance, excellent dimensional stability, high compressive strength, and reliable reinforcement positioning under demanding construction site conditions.

Overcoming Challenges, Delivering Excellence:

Reinforced concrete structures require adequate concrete cover to protect embedded reinforcement from corrosion, moisture ingress, carbonation, chemical attack, and fire exposure. Improper reinforcement positioning or insufficient cover can lead to premature structural deterioration, reduced service life, increased maintenance costs, and structural safety concerns.

To address these challenges, SANDHYAFLEX Cover Blocks are manufactured using carefully selected materials and precision-engineered designs that provide accurate reinforcement spacing, high load-bearing capability, and excellent durability. The cover blocks maintain consistent cover thickness between reinforcement and formwork, ensuring compliance with structural design requirements and construction standards.

By providing reliable reinforcement support and accurate cover maintenance, SANDHYAFLEX Cover Blocks have become the preferred choice for contractors, builders, engineers, consultants, infrastructure developers, and construction professionals worldwide.

Key Features:

• Manufactured using high-quality concrete compounds and engineering-grade polymers

• Maintains accurate concrete cover thickness

• Excellent dimensional accuracy and consistency

• High compressive strength and load-bearing capability

• Provides stable reinforcement support

• Helps prevent reinforcement corrosion

• Resistant to cracking and breakage during handling

• Suitable for horizontal and vertical reinforcement applications

• Available in concrete, PVC, wheel spacer, and rebar spacer variants

• Compatible with RCC and precast concrete structures

• Easy installation and placement

• Available in multiple cover sizes and configurations

• Suitable for slabs, beams, columns, walls, foundations, and precast elements

• Excellent durability under construction site conditions

• Cost-effective reinforcement positioning solution

• Long service life within concrete structures

• Reliable performance in residential, commercial, industrial, and infrastructure projects

Applications:

▪ **Residential Buildings:** Maintains specified reinforcement cover in slabs, beams, columns, and foundations.

▪ **Commercial Buildings:** Ensures accurate reinforcement positioning in RCC structures.

▪ **Industrial Structures:** Suitable for heavy-duty reinforced concrete construction.

▪ **Bridges and Flyovers:** Provides precise cover spacing for structural reinforcement.

▪ **Metro and Railway Projects:** Widely used in transportation infrastructure construction.

▪ **Water Tanks and Reservoirs:** Maintains reinforcement protection in water-retaining structures.

▪ **Retaining Walls:** Ensures proper reinforcement spacing and durability.

▪ **Foundations and Footings:** Supports reinforcement cages during concrete placement.

▪ **Precast Concrete Products:** Used in structural and non-structural precast elements.

▪ **Highway Infrastructure:** Suitable for roads, culverts, tunnels, and transportation projects.

▪ **Marine Structures:** Helps maintain reinforcement protection in aggressive environments.

▪ **Urban Development Projects:** Essential for modern construction and infrastructure works.

History of Cover Blocks:

▪ **Early 1900s –** Stones and broken concrete pieces were commonly used as reinforcement spacers.

▪ **1930s –** Dedicated concrete spacers began replacing improvised support methods.

▪ **1950s –** Standardized cover block manufacturing improved reinforcement positioning.

▪ **1960s –** Reinforced concrete construction increased demand for accurate cover systems.

▪ **1970s –** Improved moulding techniques enhanced dimensional consistency.

▪ **1980s –** High-strength concrete cover blocks became widely adopted.

▪ **1990s –** Plastic and polymer-based reinforcement spacers gained acceptance.

▪ **2000s –** Precision manufacturing improved quality control and product reliability.

▪ **2010s –** Infrastructure growth increased demand for engineered reinforcement support systems.

▪ **2020s –** Modern Cover Blocks provide accurate cover spacing, superior durability, and compliance with international construction standards.

Colours and Their Applications:

For Sandhyaflex Cover Blocks, colours are primarily used for product identification, size classification, project specifications, inventory management, and customer-specific requirements. The load-bearing capability, durability, and reinforcement support performance are determined by the material composition and manufacturing process rather than colour.

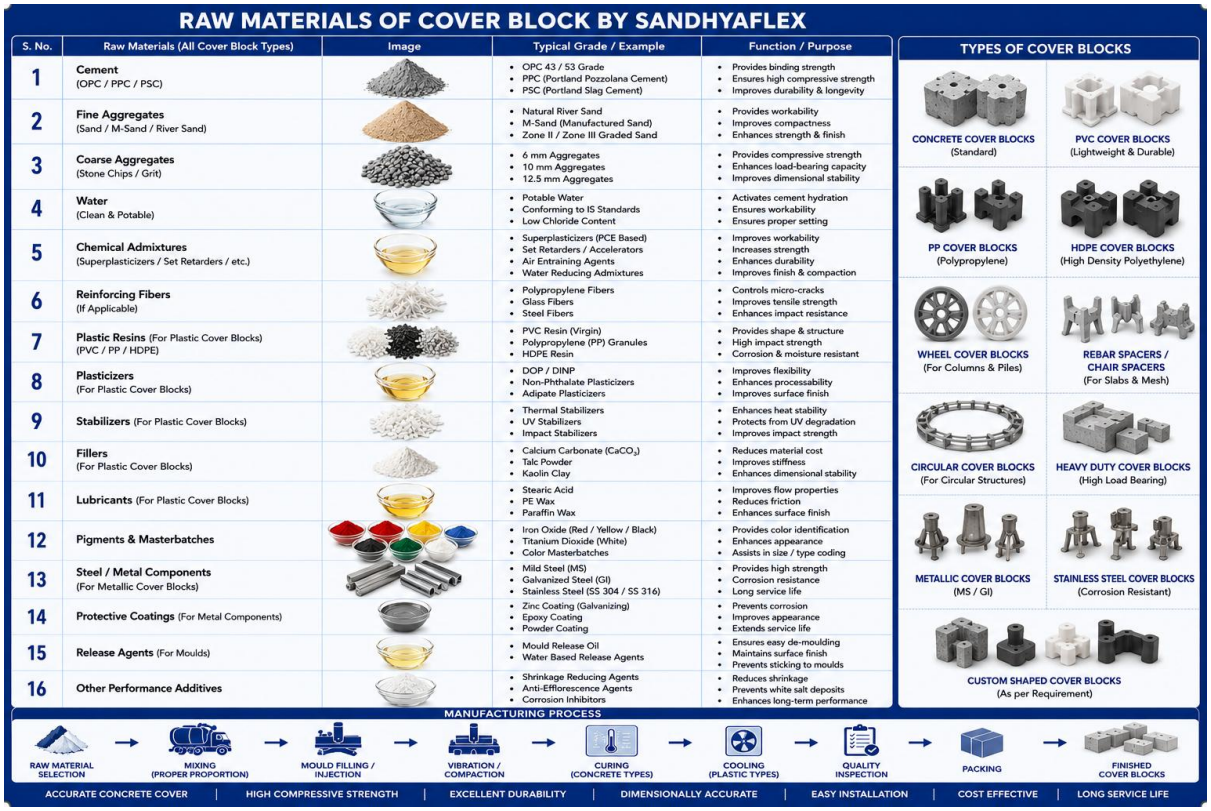
Colour	Typical Application
Grey	Standard concrete cover block applications
White	Architectural concrete and precast applications
Black	PVC cover blocks and infrastructure projects
Yellow	Size classification and reinforcement identification
Green	Wheel spacers and customer-specific requirements
Blue	Inventory management and project coding
Red	Project-specific identification and infrastructure applications

Custom Colours	Available as per customer specifications and project requirements

Materials:

The Sandhyaflex Cover Block shall be manufactured using high-quality base material, graded fine aggregates, selected coarse aggregates, water, performance-enhancing admixtures, reinforcing fibres (where applicable), engineering-grade polymers, and precision moulding technology specifically designed to provide excellent compressive strength, dimensional accuracy, load-bearing capability, reinforcement support, and long-term durability in reinforced concrete construction applications.

The cover block construction shall consist of dense, high-strength concrete or engineered polymer compositions manufactured under controlled conditions to ensure uniform dimensions, structural integrity, adequate load distribution, and reliable reinforcement positioning throughout the service life of the structure.



The components shall possess excellent resistance to moisture, weathering, cement alkalinity, construction site handling, compressive loading, vibration during concrete placement, and environmental exposure commonly encountered in residential, commercial, industrial, infrastructure, bridge, metro, and precast construction projects.

Manufactured from carefully selected construction-grade materials and quality-controlled production processes, Sandhyaflex Cover Blocks provide accurate concrete cover, reliable reinforcement support, improved structural durability, reduced corrosion risk, and long-term protection of reinforced concrete structures.

Physical and Mechanical Properties – Sandhyaflex Cover Block:

S. No.	Property / Test	Requirement
1	Product Type	Cover Block
2	Material Composition	High-Strength Concrete and/or Engineering Polymer
3	Colour	Grey / White / Black / Yellow / Custom Colours
4	Product Type	Reinforcement Cover Spacer
5	Shape	Square, Rectangular, Circular Wheel Type or Custom Design
6	Surface Finish	Smooth Moulded Finish
7	Construction	Precision Moulded Spacer Block
8	Reinforcement Support	Excellent
9	Load Bearing Capacity	High
10	Compressive Strength	High
11	Dimensional Accuracy	Excellent
12	Structural Stability	Excellent
13	Crack Resistance	Excellent
14	Impact Resistance	Good
15	Wear Resistance	Good
16	Durability	Excellent
17	Water Resistance	Excellent
18	Moisture Resistance	Excellent
19	Weather Resistance	Excellent
20	Corrosion Protection Support	Excellent
21	Fire Protection Support	Excellent
22	Chemical Resistance	Good
23	UV Resistance	Excellent (Polymer Variants)
24	Temperature Resistance	Suitable for Construction Applications
25	Concrete Compatibility	Excellent
26	Reinforcement Positioning Accuracy	High
27	Dimensional Stability	High
28	Service Life	Long-Term Durable Performance
29	Cover Thickness Range	As per Design Requirement
30	Size Availability	Standard and Custom Sizes Available
31	Application Type	Horizontal and Vertical Reinforcement
32	Typical Applications	Slabs, Beams, Columns, Foundations, Walls and Infrastructure Projects
33	Country of Origin	Made in India
34	Maintenance Requirement	Nil After Installation

Usage Tips:

▪ Select the appropriate cover block size according to the required concrete cover specified in structural drawings and project specifications.

▪ Ensure compatibility between the cover block type and reinforcement arrangement before installation.

▪ Verify that cover block dimensions comply with applicable building codes, structural standards, and project requirements.

▪ Inspect cover blocks before use for cracks, breakage, dimensional defects, or manufacturing damage.

▪ Place cover blocks at recommended intervals to ensure uniform reinforcement support and consistent concrete cover.

▪ Secure cover blocks properly to reinforcement cages wherever required to prevent displacement during concrete pouring.

▪ Use wheel-type cover blocks for columns, piles, circular reinforcement cages, and vertical applications requiring uniform cover.

▪ Avoid using damaged or broken cover blocks as they may affect reinforcement positioning and structural quality.

▪ Ensure cover blocks remain correctly positioned during reinforcement fixing, shuttering, and concreting operations.

▪ Follow applicable IS Codes, IRC Specifications, project requirements, and construction safety procedures during installation.

▪ Installation should be performed by qualified construction personnel and site engineers to ensure proper reinforcement positioning.

Maintenance and Care:

Maintaining proper use of Sandhyaflex Cover Blocks ensures accurate reinforcement placement and long-term structural durability.

▪ **Pre-Installation Inspection** – Check cover blocks for cracks, breakage, dimensional irregularities, or manufacturing defects before use.

▪ **Proper Storage** – Store cover blocks in a clean, dry area protected from damage, contamination, and excessive handling.

▪ **Handle Carefully** – Avoid dropping, throwing, or excessive impact during transportation and site handling.

▪ **Verify Placement** – Confirm proper spacing and positioning before concrete pouring begins.

▪ **Monitor During Concreting** – Ensure cover blocks remain stable and do not shift under reinforcement or concrete loading.

▪ **Prevent Contamination** – Keep cover blocks free from mud, oil, grease, and debris before installation.

▪ **Use Correct Type** – Select concrete, PVC, wheel spacer, or specialized cover block types according to the application.

▪ **Replace Damaged Units** – Remove and replace broken or defective cover blocks immediately before concrete placement.

▪ **Maintain Reinforcement Alignment** – Periodically verify that reinforcement remains properly supported throughout construction activities.

▪ **Quality Compliance** – Use cover blocks meeting project specifications and approved construction standards.

Applications by Countries:

India

▪ Widely used in residential buildings, commercial complexes, bridges, flyovers, metro projects, and infrastructure developments.

▪ Commonly specified for RCC construction requiring accurate reinforcement cover.

▪ Strong demand driven by rapid urbanization and infrastructure growth.

China

▪ Extensively used in residential, industrial, transportation, and infrastructure construction projects.

▪ Preferred for large-scale reinforced concrete developments.

▪ Strong demand from urban expansion and infrastructure modernization.

United States

▪ Commonly used in commercial buildings, highways, bridges, precast systems, and industrial facilities.

▪ High emphasis on structural durability and code compliance.

▪ Growing adoption in infrastructure rehabilitation projects.

Europe

▪ Widely utilized in reinforced concrete construction, transportation infrastructure, and architectural projects.

▪ Strong focus on quality, durability, and long-term structural performance.

▪ Preferred for compliance with stringent engineering standards.

Middle East

▪ Applied in high-rise buildings, infrastructure projects, transportation systems, and industrial developments.

▪ Suitable for demanding climatic conditions and large-scale construction.

▪ Strong demand driven by urban expansion and infrastructure investment.

Africa

▪ Used in residential housing, commercial developments, bridges, highways, and public infrastructure projects.

▪ Increasing adoption due to growing construction activity and infrastructure modernization.

▪ Preferred for durability, affordability, and ease of installation.

Southeast Asia

▪ Widely used in residential, commercial, transportation, and industrial construction projects.

▪ Strong demand driven by rapid urbanization and infrastructure development.

▪ Suitable for tropical climates and high-humidity environments.

Australia

▪ Commonly utilized in commercial buildings, bridges, transportation networks, mining infrastructure, and civil engineering projects.

▪ Preferred for long-term durability and compliance with construction standards.

▪ Strong demand from infrastructure expansion and modernization programs.

Get in touch:

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