Application of fair-faced concrete technology in construction of shear wall

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Abstract: The purpose of this paper is to analyze and discuss the technology of clear concrete, and quality control of clear-water concrete for a referral, for reference only.

Keywords: Shear Wall Clear Water concrete application

We also call clear concrete a decorative concrete, in the actual construction procedure, Clear-water concrete no need to reconcile, to achieve the desired beautification Fruit, because of its relatively simple construction process, To be widely promoted and applied.

1. effect of clear-water concrete

in construction, usually strongly advocates the use of green construction materials, of course, Clear Water Concrete as the greenest green material at the moment, also play its role : (1) for does not need to decorate its structure, To omit paint, use of chemical products such as finishes; (2) because the Water Concrete construction process once formed, do not need a chisel to plaster, to greatly reduce the build Garbage use, for Environment Protection; (3) Clear-water concrete during construction, not only has effect avoids quality problems such as plastering cracking falling off. At the same time also greatly reduce the leak and the floor of the building the board cracks and other problems occur in the probability of a; (4) because the construction of clear-water concrete is only _ Sub-shaping, so no tick patching time, must be cautious step by step, This requires the construction unit to add the strong corresponding quality control, Quality Management of a fully elevated structure; (5) because of the concrete the entire process of construction, people have more human resources and complexity, But if a clear concrete is applied to the worker, will end up with a lot of action because it doesn't need to be erased, dramatically reduces dimension premiums, and cut revenue from the total cost of the project.

Clear-water concrete is after the structure of the project is completed, does not perform any adornment on it for, apply only flat concrete exterior wall as construction surface. When doing clear water concrete, to Make sure the wall is flat and smooth, Ridge Clear, and no obvious construction seam to process traces, up to the decorative plastering quality standard.

2. problems existing in clear-water concrete construction in construction of shear walls

2.1. Design Limits application range of clear water concrete

Currently, Clear-water concrete not only has a smooth surface, Flat, and also some with concrete features, Extensive application of clear water concrete in cities, Effectively promotes the city as a whole Culvert. At the same time, the premise that the above features can be effective is to ensure the overall setting of the building The meter has certain characteristics, only this, to better play the role of clean concrete.
2.2. as a wall decoration effect single a
is currently , Clear-water concrete as a decorative function often appears very simple in order to improve the building The beauty of the object . You can add some architectural modifiers to the construction process. , such as Ming seam , through this move to enhance the viewing of buildings , If Project cost is plentiful , can be cast on clear-water concrete build process , to rubbing it , forming architectural artwork.

2.3. looks less than graceful
For the moment , Most of the clear concrete buildings , all appear to be not beautiful , To do work for defects , especially in _ Some excessive gaps , is even rougher . The reason for the is that it is not done in the relevant construction units, such as gap handling and template placement, by , to cause this class occur, at the same time , to hide the problem , construction workers have to adopt the plastering process , cause , “The beauty of a building is nondescript “.

2.4. Template Installation Specification
compared to conventional concrete construction techniques , Clear-Water concrete construction has the day Single-thick advantages , It's not only strictly spec pouring process , also relative to template process requirements high . in the construction process of clear water concrete , To change the template process to the actual conditionsEnter to meet construction needs . But in terms of the current situation , the construction process for its templates is not have breakthroughs in development , This leads to the construction of clear water concrete , on previous old Process , cannot effectively promote construction engineering quality.

3. Technical Essentials of clear-water concrete in shear wall construction
3.1. for construction survey
The pilot process for fair-faced concrete construction is construction measurement , Construction Survey has a precedent effect , for The _ No modification of the open-water concrete construction terms , must control the measurement degree of precision , to Ensure the construction quality of clear-water concrete , except for the same exercise as normal concrete , the following points still need to be aware of :(1) carefully set axes and elevation datum points , ensure axes Line and Elevation datum point accuracy level , at the same time , under the premise of ensuring accurate measurement , To Set the identity exactly , firm , and not easily contaminated ; (2) control plane size . before construction of clear-water concrete , To make sure that the floors do not appear incorrectly , axis errors, and so on. now , and eliminate the hidden dangers of clear concrete quality , to set the datum point out method for each The plane dimensions of the layer structure for effective control , and frequently check datum points ,Guarantee Construction parameters Accurate ;(3) for Clear concrete procedure , the Strictly controls the occurrence of the bar. , must guarantee the base vertical bar conforms to the design position of the corresponding component , If displacement occurs , in mixed Modify the soil before coagulation to correct the .

3.2. Rebar Works
 to ensure the quality of clear-water concrete , After the concrete is removed from the panel , to ensure no dew bars occurrences , This requires strict control in the reinforcement binding process .

3.3. Wall Reinforcement binding
(1) The basic procedure for clear-water concrete is reinforcement binding . to ensure that the reinforcement is binding, no shift , Skew , usually in shear wall lashing horizontal bar , take early " ladder " tendons , Quality Control .

(2) when the binding shear wall is reinforced with a net , Bars All rebar intersections , and adjacent binding wire , set to octal , and bend its extra parts . to complete the installation in time layer lashing mesh , to Ensure that the distance between them is less than to mm x,mm.

3.4. beam and column reinforcement binding
a dark column twist occurred during construction , When a column hoop is lashed over the top of the bar , to set more than two positioning hoops , and make sure that the main tendon is vertical , at the same time , controls the main
tendons and Hoop Corner angle, Connector location try to avoid stirrups appear, If the longitudinal force of the beam the steel bar When arranging for two or more layers, in the lined steel bar with diameter (+ mm) same Short Bars. If the beam bar exists with a curved hook, The upper bend hook should be folded, to fold the lower down hook up. at the same time, To ensure that the main tendons on the top of the beam have a net distance of mm, Mortar protection pad block to set under the main tendons, Avoid exposing the main tendons ...

3.5. Template Engineering

Is typically, Clear Concrete template works will directly affect the concrete solid inter-shaping effect, is also a determinant of concrete appearance quality, So the template is in progress material selection, Priority Selection, Transform small, smooth and can repeatedly use the material material. When selecting the material for the top panel template, usually use plastic coated bamboo material, use whenever possible Large area, and guarantee flatness control in 3 mm Scope. Control Clear Concrete vertical degree 3 mm scope, Control of clear-water concrete of the yin and yang angle straight and angle founder. Control Clear clear Water concrete surface neat and dense, There are no sundries, and bubble pores exist.

   chisel Smudge marks, Color uniformity, wall bolts are neatly pierced.

4. finished product protection technology for clear concrete

When the concrete is removed from the template, To remove both ends of the fastener before you open the template, and The templates that are removed by the are properly placed, in the template, not touch the clear concrete structure. template removed, to clear the cement slurry, template clean up, maintains its components. hoisting large templates, Note The action specification, Prevent impact concrete, after The concrete split junction bundle, take care of it at once, such as Yang Kok paste Bamboo Glue board to protect, Prevent collision Drop. When installing embedded parts and reserving holes, Construction must be carried out in strict accordance with the drawings, ensure once Correct success, No two times a tick.

5. Quality control management of clear-water concrete

(1) controls bubbles and holes in clear-water concrete surfaces. if This happens in clear-water concrete table, The is mostly caused by an irregular construction process. For example, in a coagulation When the soil is mixed, due to agitation less, causing uneven mixing; If the sand is in the ingredients content is high, which leads to a significant decrease in adhesion, with full vibration, very easy to cause gas bubble occurrences, occurs in order to control bubbles and holes effectivity, should be removed in template process immediately use Colorless release agent, prevent surface damage, last, Overall concrete After pouring ,, to be maintained regularly, to Improve the control of the concrete. ( down-ext. page page )

   The takes a reasonable base type according to different geological conditions, ensure engineering quality.

6. Epilogue

Special geologic conditions formed by reclamation of land, in Zhangzhou China Merchants Development Zone cloth very common, Other areas also exist, Many high buildings are also successfully built, such as this area Money Feed, Thai-Chinese traffic, container and so on. of course, working in such venues pass, Detailed survey and correct evaluation of proposed site, and well-designed buildings, plus Strong project Management, ensure project quality, More important to ensure that the drain pipe is actually used when it is put into use features and values, on the basis of reducing maintenance difficulty, to ensure positive of the building's drainage system often works, to facilitate social production and people's lives..

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