



Regulations of Construction Conditions And Specifications in the Emirate of Sharjah

4. Reducing the thermal infiltration into the building to maximum limit possible through studying the design of the external walls thickness, and through reducing the glass surfaces to the lowest limit possible, as well as by decreasing the size of openings (Windows) located in the eastern, southern and western facades and the areas between them, in addition to using the vertical reflectors of sunray on the western and eastern facades, and horizontal reflectors of sunray on the southern facades, provided that they should provide a shadowing rate from 30% to 50% of the windows area. Moreover, reflecting glass panes should be used, and windows sections to be fixed firmly. While the white color and light colors shall be used for the walls outer surfaces, provided that the value of the thermal conveyance coefficient must not be more than (U) for the surfaces and walls than what has been stated in the thermal insulation conditions stipulated in these Regulations.
5. Weak thermal conveyance materials must be used in the external walls, especially the southern, eastern and western facades and the spaces between them by using thermal blocks (Thermoston) or clay block, or two-layer cement blocks separated by air cavity of 5cm thickness. Insulating artificial materials maybe added to the external walls like fiberglass, rock wool, or polystyrene material for increasing the thermal insulation. In the event of using any other material suggested by consultant, it should have the same performance of thermal insulation and to be supported by the researches and studies evidencing so.
6. Reflecting glass and thermal insulator must be used, in addition to using the double glass in the event of making glass surfaces (curtain walls) for obtain efficient thermal and audio insulation.
7. Thermal insulation must be used in the leveling layers as a basic layer in addition to the light concrete layer made of the available artificial materials like the rock wool or fiberglass, or polystyrene, or any other material suggested that has the same function with thickness no less than 5cm, and to be protected from the bottom and top with two layers of polyethylene (Dag 1000) for preventing the corrosion of the thermal insulation layer as a result of its friction with other materials, or due to its exposure to acid rain. The thermal insulation layer maybe fixed at the bottom or top of the humidity proof layer according to the design proposed by consultant and according to the requirements of the periodical maintenance of the insulation layers. On the other hand, designs for the thermal insulation maybe used for the building roof without using artificial materials on the basis of providing a protected and shadowed air insulating layer giving the required insulation, or any design