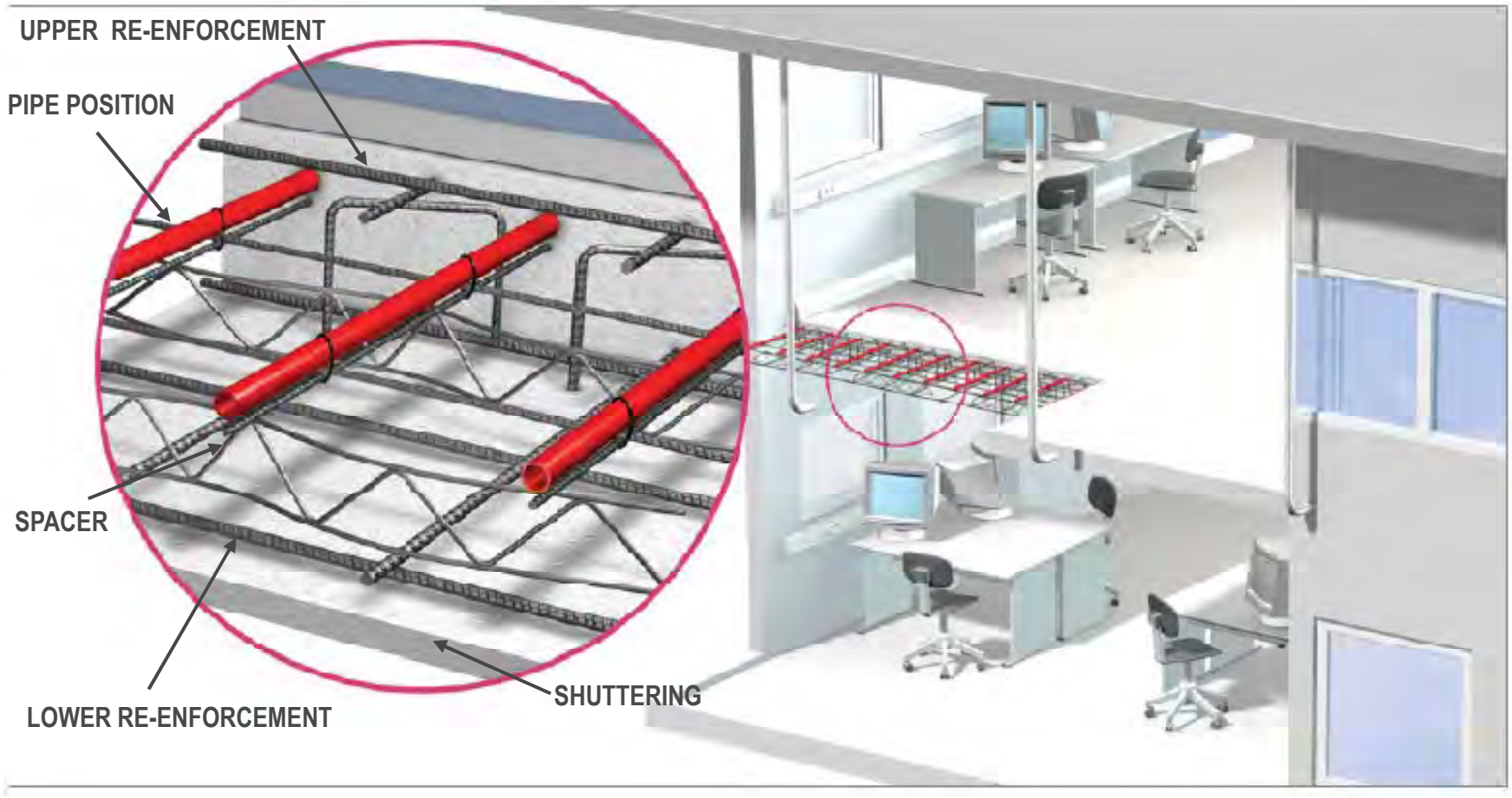
REHAU
Unlimited Polymer Solutions

INNOVATIVE BUILDING SOLUTIONS

AMIT DHAIRYAWAN – ENERGY & RESOURCE EFFICIENCY

Concrete Core Tempering

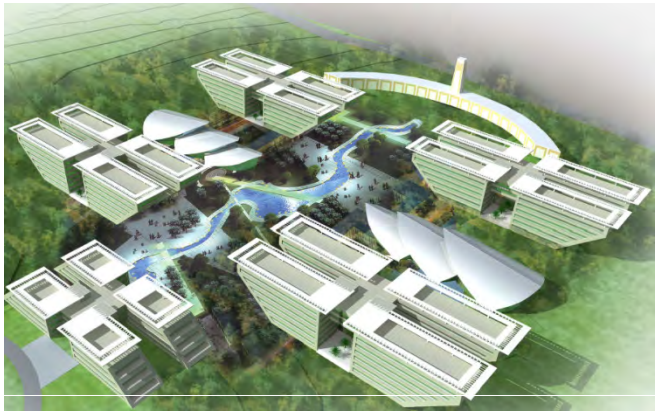
Installation Principle



SUBSURFACE HEATING AND COOLING

CONCRETE CORE TEMPERATURE CONTROL - REFERENCES

INFOSYS – POCHARAM HYDERABAD



Details:

SDB-1

TOTAL 200,000 SQ.FT

2 IDENTICAL WINGS – 100,000SQ.FT EA

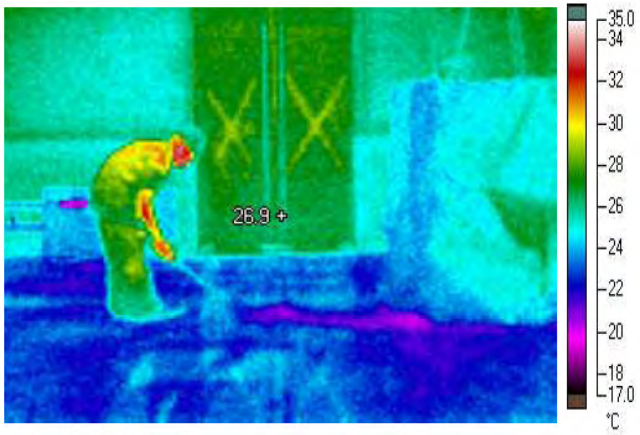
WING-1 – CONVENTIONAL HVAC

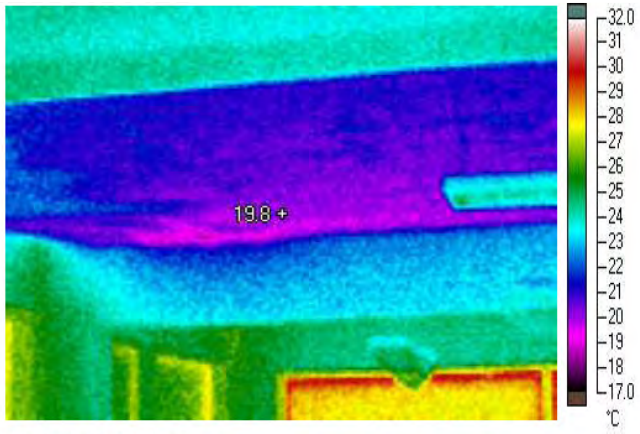
WING -2 – RADIANT SYSTEM

RADIANT COOLING

CONCRETE CORE TEMPERATURE CONTROL - REFERENCES

INFOSYS - HYDERABAD





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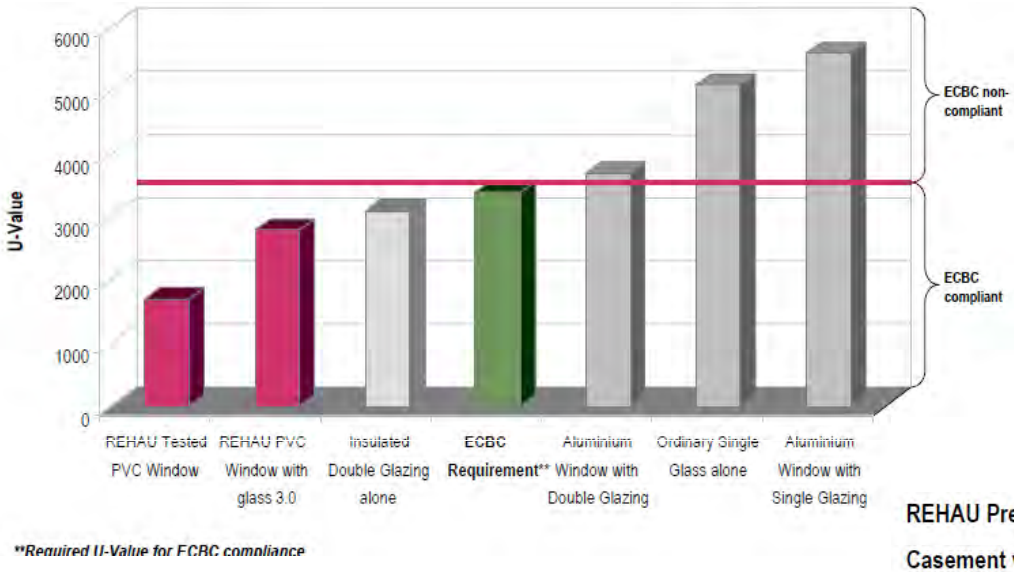
REDUCE ENERGY LOSSES

ENERGY EFFICIENCY FOR FENESTRATION



**Required U-Value for ECBC compliance

SOLAR HEAT GAIN COEFFICIENT (SHGC):

Ratio of Solar energy tranmission vs. total incident energy

SHGC of 0.25 means 25% of the total incident solar energy is allowed inside..

U-VALUE:

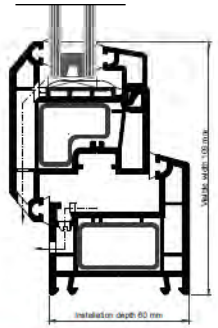
Heat transmitted through a unit area of the window, induced by temperature difference on either side of the window.

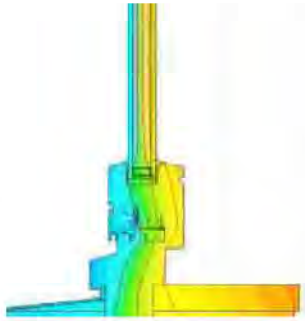
U-Value of 7 = 7 Watts energy loss / m^2 per 1°C.temperature difference

REHAU Prestige Design

Casement window

(DGU)





	unit	uPVC	Wood	Aluminum
Thermal Conductivity	W/m.K	0.21	0.3	210
			1000 times	
Thermal Insulation	$W/m^2.K$	1.7	2.0	5.7
			3 times	

DISTRIBUTE ENERGY EFFICIENTLY – DISTRICT HEATING

COMMUNAL HEATING SCHEMES TO FURTHER REDUCE CO2 EMISSIONS

Typical Energy Sources:

Combined Heat & Power Plants

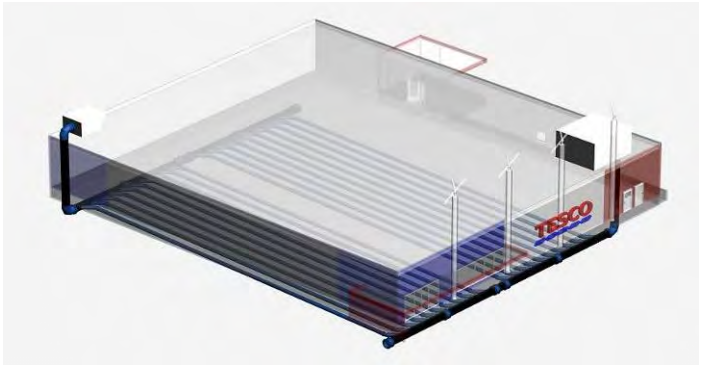
or

Biogas Plants (Waste to Energy)

REDUCE ENERGY LOSSES - VENTILATION

CASE STUDIES - GROUND-AIR HEAT EXCHANGER

Sutton Life Centre, Surrey



Tesco Store, Poland

Treehouse Trust School, London

QE School, Dorset

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THANK YOU FOR YOUR ATTENTION

ANY QUESTIONS?