VARIWALL

ARCHITECTURAL SPECIFICATIONS

A. SCOPE OF WORK:

Furnish insulated metal wall panel and accessories in accordance with this specification and all applicable drawings. Products to be considered equal to those specified below must be approved in writing by the architect.

B. PRODUCT DESCRIPTION:

B1. General: Variwall a factory made insulated metal wall cladding panels, shall be a nominal 1.0 M, 900 mm and 650 mm wide and having a thickness of (55,75,85 & 100 mm).

B2. Physical Properties:

B2-1. Steel Skins: The interior and exterior embossed face skins shall be formed of (0.75 mm) gage galvanized steel conforming to ASTM A446 – 71, grade A, structural quality with hot dipped commercial quality galvanized coating, designation G-90 (275 Gm/m2).

B2-2. Insulation: Continuously poured in place rigid expanded Polyisocyanurate foam with a minimum 95% closed cell structure.

Density: 45 Kgs/m3 (minimum) determined in accordance with the procedures specified in ASTM D 1622 – 63 (re-approved 1075).

Tensile Strength: 1.62 Kg/cm2 (minimum) determined in accordance with the procedures specified in ASTM C365 – 57 (re-approved 1976).

B2-3. **Colour Coating**: The exterior face of panel and flashing shall receive a factory applied (KYNAR PVF-2, VERSACOR TF or HP-200) paint finish having a colour to be selected from HESCO standard colour range.

B2-4. **Side Joints**: The side joints shall be of the male – female interlocking type with concealed fastening.

B2-5. **Metal Flashing and Trim**: Shall be factory formed from the same material and finish as the face skins of panel.

C. PRODUCT PERFORMANCE:

C-1. Structural Tests: Structural designs shall have been verified by witnessed structural tests for wind loads by the :Chamber Method" as outlines in ASTM Specification E72. Standard test design loading shall be 1,000 n/m2 positive or negative simulated wind load and a deflection limit of L/180 under positive loading.

C2. Fire Performance Testing: Panels shall be rated and carry the following listings:\

C2-1 Flame Spread: German DIN standard B1 classification (ASTM E84 tunnel test equivalent 25)

C-3 Thermal U-value: The Panels when tested by recognized independent laboratories should achieve a U-value 0.38 w/m2/deg C at 55 m thick in accordance with ASTM C-236) ASHRAE winter design) with 15 MPH wind outside, still air inside.

C-4 Weather Tightness: Panels shall meet the air infiltration test when tested by recognized independent laboratories should achieve difference of 5.0 PSF. Panels should also meet the water penetration test as conducted in accordance with ASTME-331 :Test of Water Penetration" with s static pressure difference of 5.0 PSF to 20.0 PSF.

C-5 Colour Coating Testing: Panel coating shall meet all performance criteria as listed in the appropriate paint specifications depending on the selected coating system as specified above (either KYNAR PVF-2, VERSACOR TF or HP-200 finish).

TECHNICAL DATA

Width	Nominal effective coverage 650 mm, 900 mm and 1.0 meter
Thickness	Minimum 55 mm, maximum 100 mm
Length	Minimum 2.0 mm, maximum 15.0 m

METAL SKINS

Steel gage	0.75 mm thick conforming to ASTM A446, Grade A
Galvanization	Hot dipped galvanized steel designation G-90 (275 gm/m2)

FIRE TEST

Flame spread 25)	German DIN standard B1 classification (ASTM E84 tunnel test equivalent
Smoke developed	German DIN standard 53436/37, light transmission (%) 60 rating (ASTM E84 tunnel test equivalent 450)

INSULATION PROPERTIES

Type	Polisocyanurate foam
Density	From 45 kg/m3
Closed cell structure	95%
Tensile strength	3.0 kg/m2
Compressive strength	1.62 kg/m2

VARIWALL SYSTEMS WITH WINDOWS AND GLAZING

This has been developed for adoptability to a wide range of component for designer. The windows are shop assembled so that all openings are precise and glass fits security. Installation and glazing cane be done from inside building to permit work in inclement weather.

HORIZONTAL PANEL APPLICATION

HESCO'S unique joint for horizontal utilizes the concept of eliminating the exposed sealnt required by other types of joint. Vertical between the panels have a rubber compressible gasket that is recessed to complement the horizontal joint reveal. No wet sales are exposed thus reducing dirt retention with its subsequent panel testing.

VARIWALL VALUES FOR OWNERS & DESIGNERS

MODERN TECHNOLOGY

HESCO uses the most modern and sophistication technology to manufacture VARIWALL insulated panel for architectural wall system on the only continuous foam injection line on the Kingdom. HESCO uses insulation available to produce the best protected metal insulated panel internationally allowing greater freedom and versatility of design.

SRUCTURAL EFFECIENCY

HESCO Variwall is winning the support of the Middle East' leading architects and owners through its existence as already used in a great number of prestigious project in the Kingdom. HESCO insulated variwall is recognized by consultant and contractors for its technical innovation, design strength and quality.

CORROSION FREE

The base metal is well protected by the highest metal protector available internationally. HESCO has realized the problem of the Arabian peninsula which is one of the most corrosive area in the world, the high temperature and salt-laden atmosphere combined with high humidity. There are also, high level of ultra violet radiation plus abrasive wind blown sand. The variation of temperature resulting condensation, thus, HESCO always produce the highest quality material to assure the best quality of variwall.

DURABILITY
Long lasting performance is achieved through the use of the best raw materials in the manufacturing process and it's accessories.

PERFECTLT SEALED
The most important factor corners are designed to meet maximum security against any infiltration. Curved and angle corner are also produced to suit all requirements by the architects.

RESEARCH AND DEVELOPMENT
Continuous research and development have enabled HESCO to offer perfect component and construction techniques resulting in one of the highest standard yet achieve in the filed of insulated architectural wall system in terms of efficiency and energy conservation. HESCO has a team of qualified and highly trained professional and technical staff. We always believe in our product dynamism which makes us the leader in the industry ever attuned to market requirements.