

# EC EXCEL WIRE SDN. BHD.

"YOUR INTELLIGENT CHOICE IN REINFORCEMENT SOLUTIONS"











#### **INTRODUCTION**

# **LEADERSHIP**MANAGEMENT

**EC EXCEL WIRE SDN BHD** is a well-established mesh and wire manufacturer and we have over 10 years of experience in Malaysia.

Under excellent and visionary leadership of the management, the company has gained growing reputation as a reliable manufacturer/supplier of quality products and services in Malaysia.

**EC EXCEL WIRE SDN BHD** has been awarded the ISO 9001 certification in recognition of the quality management system and SIRIM products certification license (MS 145:2006) in 2012. The successful registration under Ministry of Finance Malaysia as an authorized manufacturer/supplier for government projects is also an important milestone for us to move forwards.

After many years of effort, our products are being sold well domestically and enjoy an excellent reputation locally & internationally. We believe that the best way to serve you is to work together with you. We wholeheartedly welcome every interested company from domestic from foreign country to contact us for further detail of our product.





# "YOUR INTELLIGENT CHOICE IN REINFORCEMENT SOLUTIONS"

WE DEFINE THE NEED & CREATING INSPIRING DESIGN SOLUTION.

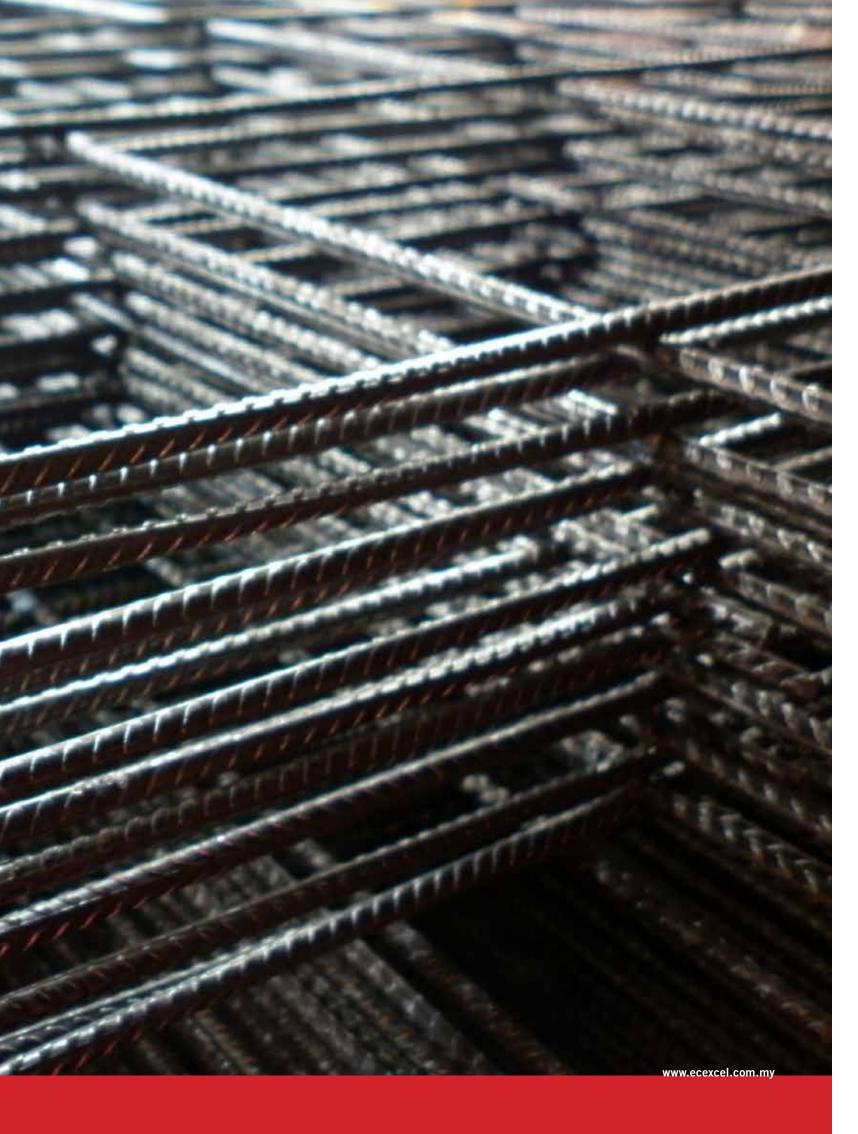
"Exceptional product quality; immediate technical and sales support; dependable on-time delivery"

YOU CAN EXPECT THE HIGHEST PRODUCT QUALITY, GREATEST VALUE AND UNBEATABLE SERVICES FROM US.

"Meet your specification, exceed your expectation"

PRODUCE QUALITY PRODUCTS THAT MEET CUSTOMER REQUIREMENTS AND SATISFACTION

www.ecexcel.com.my



### **WELDED WIRE MESH** FOR CONCRETE REINFORCEMENT

WELDED WIRE MESH FOR CONCRETE REINFORCEMENT has been widely used as reinforcement for concrete structures in Malaysia and many developed countries.

**EC EXCEL WIRE** Welded Wire Mesh is manufactured on automatic welding machines, ensuring uniform spacing of wires and consistent cross-sectional area. The welding is accomplished by an electronically controlled electrical process employing the principle of fusion combined with pressure, which actually fuses at the cross-section wire into a homogeneous section without loss of strength.

All steel fabric manufactured in compliance with MALAYSIA STANDARD MS 145 are of the highest quality where stringent • Less wastage and less steel usage. quality control are imposed to ensure consistency and reliability.

#### **ADVANTAGES:-**

- Higher bind and anchorage characteristics of its ribbed wire.
- Ribbed wire is cold-rolled produced which provide more consistent properties and better ductility.
- Crack widths in concrete elements are controlled to the minimum because force is well distributed through bond effect of ribbed wire as compared to plain wire.
- Quicker placement and installation.

#### **TECHNICAL SPECIFICATION:-**

- MALAYSIA STANDARD MS145:2014 on steel welded mesh for the reinforcement on concrete.
- Characteristic tensile strength is 485N/mm<sup>2</sup>
- Minimum average shear value in Newton shall not be less than 0.5 of yield strength multiplied by the area of the larger diameter wire.

### **CUSTOMIZED** WELDED WIRE MESH

- We offer customized wider range or Steel Wire Welded Mesh to match closely with customers' needs.
- We possess the right degree of ductility to allow it to be bent, shaped or fashioned readily on the job yet is sufficiently rigid to maintain its shape after bending.

#### **SPECIAL FABRICS:-**

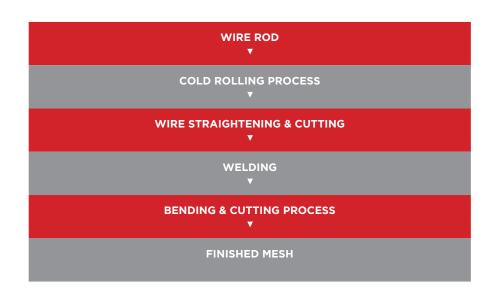
Able to provide the designer / detailer of specifying optimum steel area requirement in both direction.

#### **ADVANTAGES:-**

- Shorten the construction time.
- Easy handling.
- Adaptive
- High & consistent quality.
- Enhance anchorage and crack control.

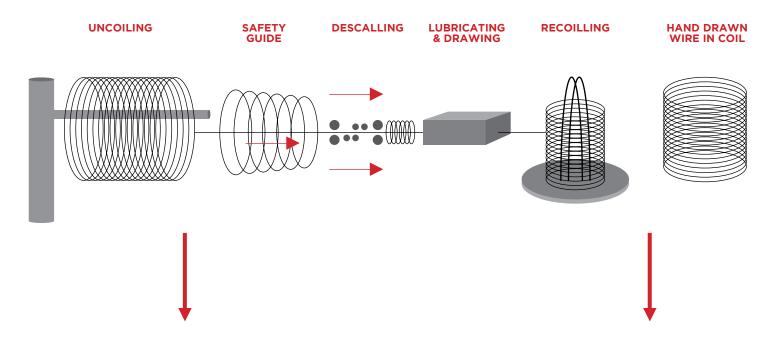
### THE PRODUCTION

### **PROCESS**

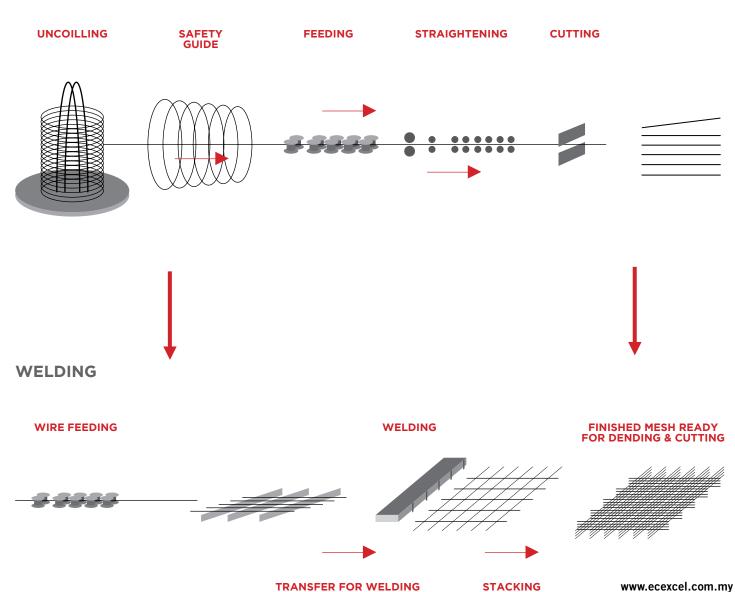




#### **COLD ROLLING PROCESS**



#### **WIRE STRAIGHTENING & CUTTING**



#### SPECIFICATION OF STEEL MESH FOR CONCRETE REINFORCEMENT

TYPE A	Square Fabric	200MM X 200MM spacing
ТҮРЕ В	Rectangular Fabric	100MM Main Wire, 200MM Cross Wire
TYPE C	Long Fabric	100MM Main Wire, 400MM Cross Wire
TYPE D	Small Square Fabric	100MM X 100MM spacing

FABRIC	Malaysia Standard Ref. No.	Ma	ain	Cross Wire		Steel Area	a (mm²/m)	Nominal Mass Per
REF:		Diameter (mm)	Spacing (mm)	Diameter (mm)	Spacing (mm)	Main	Cross	Square Meter (kg / m <sup>2</sup> )
			so	QUARE MESH				
A 12	A565	12	200	12	200	565	565	8.88
A 11	A475	11	200	11	200	475	475	7.46
A 10	A393	10	200	10	200	393	393	6.16
A 9	A318	9	200	9	200	318	318	4.99
A 8	A252	8	200	8	200	252	252	3.95
A 7	A193	7	200	7	200	193	193	3.02
A 6	A142	6	200	6	200	142	142	2.22
A 5	A98	5	200	5	200	98	98	1.54
A 4	A63	4	200	4	200	63	63	0.99
			RECT	ANGULAR MESH				
B 12	B1131	12	100	8	200	1131	252	10.9
B 11	B950	11	100	8	200	950	252	9.44
B 10	B785	10	100	8	200	785	252	8.14
В 9	B636	9	100	8	200	636	252	6.97
В 8	B503	8	100	8	200	503	252	5.93
В 7	B385	7	100	7	200	385	193	4.53
В 6	B283	6	100	7	200	283	193	3.73
B 5	B196	5	100	7	200	196	193	3.05

FABRIC	Malaysia Standard Ref. No.	M	Main Cross Wire		Cross Wire Steel Area (mm²/m)		(mm²/m)	Nominal Mass Per	
REF:		Diameter (mm)	Spacing (mm)	Diameter (mm)	Spacing (mm)	Main	Cross	Square Meter (kg / m <sup>2</sup> )	
	SQUARE MESH								
C 12	C1131	12	100	8	400	1131	126	9.87	
C 11	C950	11	100	8	400	950	126	8.44	
C 10	C785	10	100	6	400	785	71	6.72	
C 9	C636	9	100	6	400	636	71	5.55	
C 8	C503	8	100	5	400	503	49	4.34	
C 7	C385	7	100	5	400	385	49	3.41	
C 6	C283	6	100	5	400	283	49	2.61	
C 5	C196	5	100	5	400	196	49	1.93	
			RECTA	ANGULAR MESH					
DA 12	DA1131	12	100	12	100	1131	1131	17.76	
DA 11	DA950	11	100	11	100	950	950	14.91	
DA 10	DA785	10	100	10	100	785	785	12.32	
DA 9	DA636	9	100	9	100	636	636	9.98	
DA 8	DA503	8	100	8	100	503	503	7.90	
DA 7	DA385	7	100	7	100	385	385	6.04	
DA 6	DA283	6	100	6	100	283	283	4.44	
DA 5	DA196	5	100	5	100	196	196	3.08	
DA 4	DA126	4	100	4	100	126	126	1.93	

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#### **TECHNICAL**

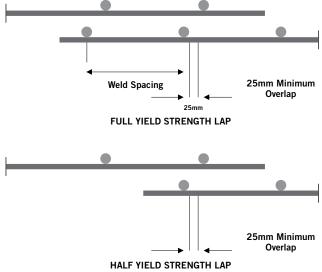
### **DETAILS**

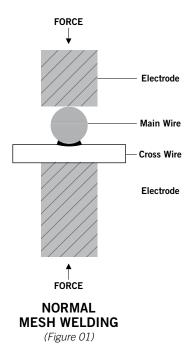
#### **LAPPING DETAILS**

Tension lap length should at least be equal to the design tension anchorage length necessary to develop the required stress in the reinforcement

To achieve full yielding strength in side laps, the WELDED WIRE MESH must be overlapped by two cross welds with an addition of at least 25mm wide. To achieve half yielding strength, the WELDED WIRE MESH must be overlapped by one weld with an additional of at least 25mm wide.

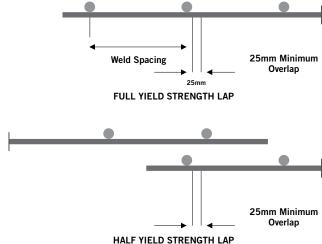
\*\* Full yield strength lap should always be provided when lap length is not specified.





#### **BENDING**

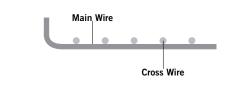
End anchorage in the form of hooks and bens should only be used to meet specific design requirement. EC EXCEL WIRE WELDED WIRE MESH can also be bent in accordance to the required size and shape.

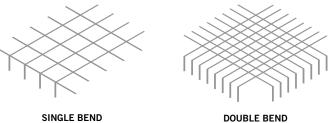


#### **ANCHORAGE & WELD**

EC EXCEL WIRE fabric is manufactured with automatic welding machines to develop a weld shear stress of 250 N/mm<sup>2</sup>. This weld is achieved under controlled by combination of pressure, electric current and time to develop a fusion of wire without reducing the tensile properties of wire.

Once Fabric is embedded in concrete, the anchorage of the fabric necessary to develop tensile stress within the wire is achieved by the embedded of the cross wire. With the weld shear stress referred to above, one weld will achieve at least half of the specified characteristic yield stress of the wire. Hence the bond between the wire surface and the concrete can be regarded as additional anchorage and the tensile stresses can be developed in short length than those required by smooth bars. An embedded of two weld will develop at least the yield strength of the wire.





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PC000487 No Lesen: Licence No :

#### LESEN PENSIJILAN BARANGAN

#### Product Certification Licence



SIRIM QAS International Sdn. Bhd. dengan ini menganugerahkan kepada SIRIM QAS International Sdn. Bhd. hereby grants to

EC EXCEL WIRE SDN. BHD. LOT 77 A , LORONG GEBENG 1/7 **GEBENG IND. ESTATE** KUANTAN, PAHANG **26080, KUANTAN** PAHANG, MALAYSIA



Lesen untuk menggunakan Tanda Pensijilan di atas barangan a licence to use the Certification Mark on

WELDED STEEL FABRIC FOR THE REINFORCEMENT OF CONCRETE

Please refer to detail in the SCHEDULE

sebagai mematuhi keperluan as complying with MS 145: 2006



Khalidah Mustafa Pengarah Urusan Managing Director SIRIM QAS International Sdn. Bhd.

SiRIM QAS International Sdn. Bhd. (No. Syarkat 410334-X) Selangor Darul Ehsan MALAYSIA

http://www.sirim.my

Tarikh Mula Pensijilan : 11 January 2013

Tarikh Dikeluarkan : 11 January 2016 Issue Date

021497

Certified Since Sah Sehingga

Valid Until

: 11 January 2017

No Siri

Serial No

Lesen ini dianugerahkan tertakluk kepada syarat-syarat Perjanjian Pensijiian Barangan SIRIM QAS International Sdn. Bhd. This Licence is granted subject to the provisions of the Product Certification Agreement of SIRIM QAS International Sdn. Bhd.



THE INTERNATIONAL CERTIFICATION NETWORK

#### **CERTIFICATE**

IQNet and SIRIM QAS International hereby certify that

#### EC EXCEL WIRE SDN. BHD.

LOT 77A. LORONG GEBENG 1/7 GEBENG INDUSTRIAL ESTATE 26080 KUANTAN PAHANG DARUL MAKMUR MALAYSIA

has implemented and maintains a

#### **QUALITY MANAGEMENT SYSTEM**

which fulfils the requirements of the following standard

ISO 9001: 2008

for the following activities

MANUFACTURE OF STEEL WIRE MESH (BRC).

Issued on

: 22 October 2015

Validity date

: 14 September 2018

MY-6421

Certification Number

- Net

Michael Drechsel President of IQNet SIRI

Khalidah Mustafa Managing Director SIRIM QAS International Sdn Bhd

IQNet Partners\*:

AENOR Spain AFNOR Certification France AIB-Vincotte International Belgium ANCE-SIGE Mexico APCER Portugal CCC Cyprus
CISQ Italy CQC China CQM China CQS Czech Republic Cro Cert Croatia DQS Holding GmbH Germany
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JQA Japan KFQ Korea MIRTEC Greece MSZT Hungary Nemko AS Norway NSAI Ireland PCBC Poland
Quality Austria Austria RR Russia SII Israel SIQ Slovenia SIRIM QAS International Malaysia
SQS Switzerland SRAC Romania TEST St Petersburg Russia TSE Turkey YUQS Serbia
IQNet is represented in the USA by: AFNOR Certification, CISQ, DQS Holding GmbH and NSAI Inc.
\* The list of IONet partners is valid at the time of issue of this certificate. Updated information is available under www.ionet-certification.com



No. Perakuan : 000493

PERAKUAN PEMATUHAN STANDARD (BAHAN BINAAN)

Adalah dengan ini Pengilang/Pengeluar yang dinyatakan di bawah ini telah mengeluarkan bahan binaan yang diperakui oleh Lembaga mengikut Bahagian VIIA Akta Lembaga Pembangunan Industri Pembinaan Malaysia (Pindaan 2011). Perakuan ini adalah tertakluk kepada syarat-syarat yang telah ditetapkan. Perakuan ini mengesahkan bahawa bahan atau produk binaan yang dinyatakan di bawah telah diperakukan oleh Lembaga.

No. Pendaftaran

: 1151228PH0075

Nama Pengilang / Pengeluar

EC EXCEL WIRE SDN BHD

Alamat Kilang Berdaftar

LOT 77A, LORONG GEBENG 1/7 GEBENG INDUSTRIAL ESTATE

26080 KUANTAN

PAHANG

#### Kategori dan Jenis produk bahan binaan :

(Rujuk Lampiran A untuk butiran terperinci)

#### IRON AND STEEL PRODUCTS

· Welded Steel Fabric for the Reinforcement Concrete

Tarikh Mula Berkuatkuasa

28-12-2015

Tarikh Tamat Tempoh Perakuan

27-12-2016

Perakuan ini hendaklah diperbaharui selewat-lewatnya 30 hari sebelum tarikh tamat tempoh perakuan

Nota: Perakuan dikeluarkan setelah Lembaga menjalankan pemeriksaan dan pengesahan ke atas kilang dan produk-produk yang terkandung di dalam Pensijilan Produk (Product Certification) yang dikeluarkan oleh Badan Pensijilan yang diiktiraf.

IR. MUKHTAR CHE ALI PENGURUS BESAR BAHAGIAN BAHAN BINAAN b.p Ketua Eksekutif





#### **CERTIFICATE**



SIRIM QAS International hereby certifies that

EC EXCEL WIRE SDN. BHD. LOT 77A, LORONG GEBENG 1/7 GEBENG INDUSTRIAL ESTATE 26080 KUANTAN PAHANG DARUL MAKMUR MALAYSIA



has implemented a Quality Management System complying with

ISO 9001: 2008

QUALITY MANAGEMENT SYSTEMS - Requirements



Scope of Certification

MANUFACTURE OF STEEL WIRE MESH (BRC).





IRIM QAS International Sdn. Bho

(Company No. 410334-XI 1, Persiaran Dato' Menteri Section 2, P. O. Box 7035 40700 Shah Alam Selangor Darul Ehsan

Tel: 60-3-5544 6404

http://www.sirim-qas.com.my http://www.malaysiancertified.com.my Issue date

: 22 October 2015

Validity period

: 22 October 2015 - 14 September 2018

Certification No.

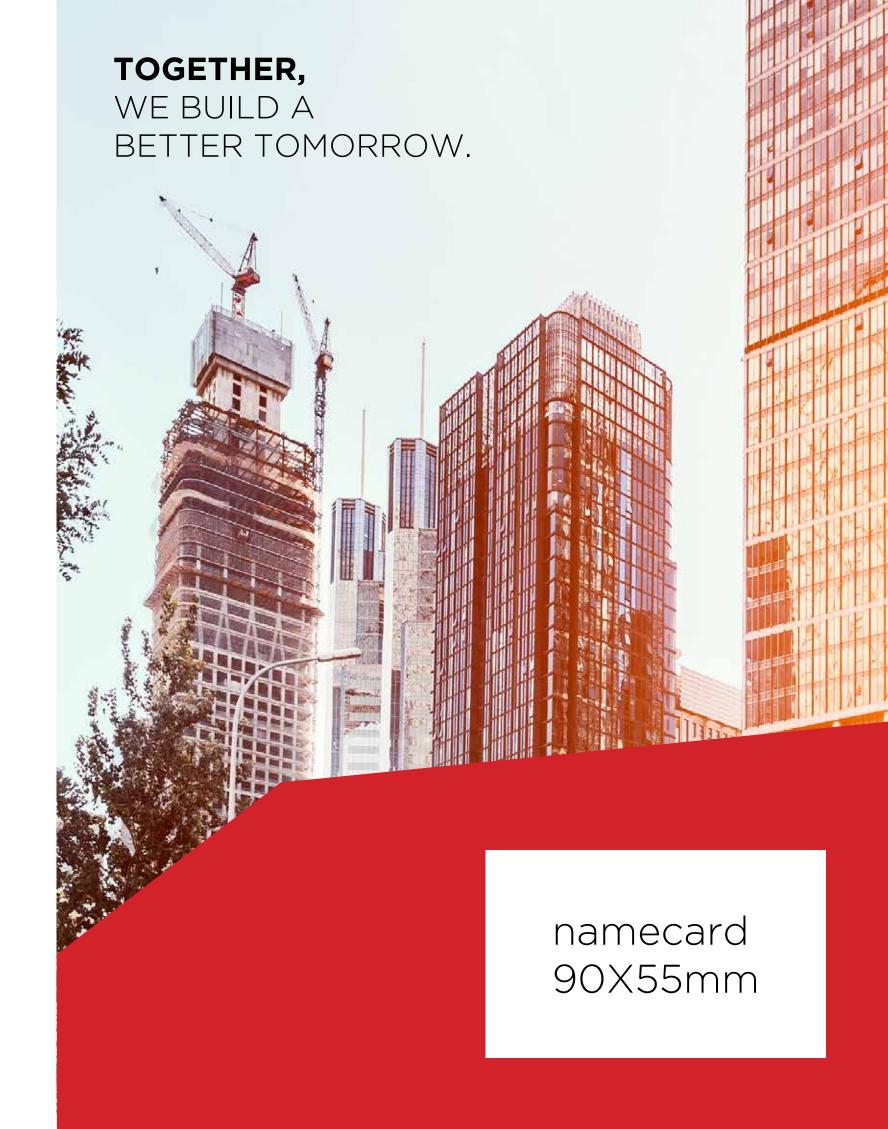
: 6421

1 Chabidah fustaf

Khalidah Mustafa Managing Director

SIRIM QAS International Sdn. Bhd.

This certificate is granted subject to the terms and conditions as stated in the Certification Agreement.



#### EC EXCEL WIRE SDN. BHD. (764525-A)

HQ OFFICE: A-1100, Jalan Dato Mahmud, 25050 Kuantan, Pahang Darul Makmur.

HUNTING LINE: 09-566 1623 FAX: 09-566 5069

ec.excel@hotmail.com

WEBSITE:

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KL OFFICE: B-3A-7, Seri Gembira Avenue, No.6, Jalan Senang Ria, Taman Gembira, 58200 KL.

HUNTING LINE: 03-7971 6689 FAX: 03-7972 6678

Lot 77-A, Lorong Gebeng 1/11, Kawasan Industrial Gebeng 26080, Kuantan Pahang, Malaysia

TEL: 09-583 7881 09-583 7882

#### **GALVANIZED WIRE MESH**

Made of quality of low carbon steel wire using fully automated welding equipment

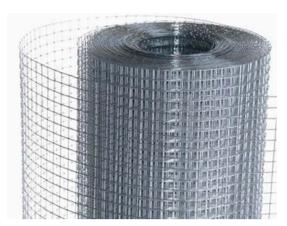
Surface of the mesh has undergone anti-corrosion treatment

Widely used in industry, agriculture, construction, transportation, mining, animal cages and etc

Any kinds of specification are decided by customer's requirement (Cut-To-Size available)

# ROLL FORM

Ref. No.	Wire Diameter	Height	Length
EC 610	2.0 - 2.5		
EC 65	3.3 - 4.5	6' (1.8m)	20m
EC 66	2.6 - 3.2	(110111)	





# SHEET FORM

Ref. No.	Wire Diameter	Wire Spacing (W x H)	Height	Length
2210	2.6mm	2" x 2"	6'	10'
2211	2.1mm	(50mm x 50mm)		(3m)
2208	3.2mm			









#### ANTI CLIMB FENCE PANEL

Designed to bring superior protection, good visibility and appealing architectural design The small spacing increase security - discourage cutting and climbing Suitable for premises that require high-security perimeter protection







#### **APPLICATION**



Airport





Harbour







Walkway

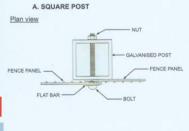


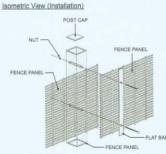
EC EXCEL ANTI CLIMB FENCE MODEL	HEIGHT OF FENCE	WIDTH OF FENCE	MESH SPACING	FENCE DIAMETER
ECAC 1200	1.2m			
ECAC 1500	1.5m			
ECAC 1800	1.8m			
ECAC 2100	2.1m	2.4m	12.5mm x 75mm 25mm x 75mm	4mm
ECAC 2400	2.4m			
ECAC 2700	2.7m			
ECAC 3000	3m			

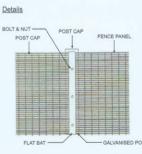


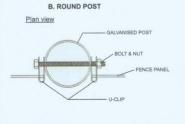
#### **TALLATION**

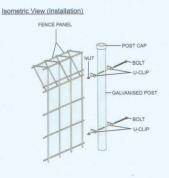


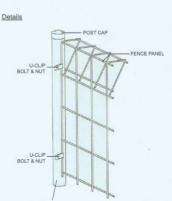












# CHAIN LINK FENCING

well suitable for a wide range of application such as fencing for sports field, river banks, construction and residence, animal fencing and so on.

Assortment available: galvanized iron wire & PVC coated wire mesh (available in green, blue and orange color)

Any kinds of specification are decided by customer's requirement (Cut-To-Size available)

### Chainlink Fencing PVC GALVANIZED

Height				
Feet	Meter	Spacing	Length	Colors
3'	0.9			
4'	1.2			Green
5'	1.5	2" / 2½" /	40'	(Standard)
6'	1.8	2%" / 3"	40'	Blue / Orange
7'	2.1			(Special)
8'	2.4			





PVC Chainlink Fencing



GI Chainlink Fencing



#### **Galvanized wire** WIRE GAUGE LENGTH FT **SWG 12** 60' 18M 15M 50 4 **SWG 10** SWG 8 12M 40 ' 9M 30 '

#### **GALVANIZED / GI WIRE**

- · Shiny silver in colour
- Designed to prevent rusting
- · Solid, durable and extremely versatile
- · Widely used by landscapers, manufacturers and contractors







#### **PVC WIRE**

SWG 6

- · Manufactured with quality iron wire
- Most popular plastic for coating wires
- · Relatively low in cost, resilient fire retardant and possesses good insulating properties
- Water resistance and anti rust
- Available in green, blue, black and grey colour

PVC wire						
WIRE GAUGE	LENGTH	FT				
SWG 12	30.5M	100′				
SWG 10	24M	80′				
SWG 8	18.3M	60'				
SWG 6	12.2M	40′				





#### **BARBED WIRE**

- Type of fencing wire constructed with sharp edges or points arranged at intervals along the strands.
- Used to construct inexpensive fences and is used atop walls surrounding secured property
- It is simple to construct and quick to erect, even by an unskilled person
- Available in various sizes

PVC Barbed wire						
PACKING	LENGTH	FT				
6KG	55M	180				
7KG	64M	210				
8KG	73M	240				
9KG	83M	270				
10KG	92M	300				

Galvanized Barbed wire						
PACKING	LENGTH	FT				
6KG	46M	150				
7KG	54M	175				
8KG	61M	200				
9KG	69M	225				
10KG	76M	250				





## STEEL BAR









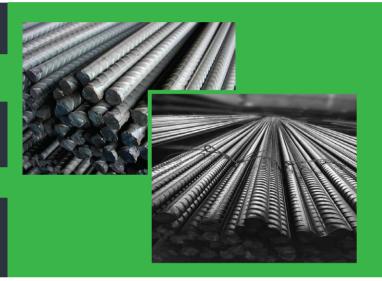
Conformed to MS 146:2006

Hot rolled deformed/plain round steel bars for the reinforcement of concrete (BS Steel Bar)

Widely used for building, bridges, highway and runways, construction and etc

Available in various common sizes

Any kinds of specification are decided by customer's requirement (Cut-To-Size available)





# HARD DRAWN WIRE

Available in various sizes

Premium steel grade

JIS standard

Wire gauge SWG 6 ~ SWG 18

Drawn wire type

Application in manufacturing

Can be special use for

cold heading steel



# RAZOR / CONCERTINA BARBED TAPE



A kind of modern with high security fencing materials

Fabricated with razor-sharp steel blade and high-tensile wire.

Ideally used in the protection of garden apartment, government agency, jail, sentry, frontier defense etc.









Blade Style	Thickness	Wire Dia	Barb Length	Barb Width	Barb Spacing
Blade Length  Blade Space  Blade Space	0.5±0.05	2.5±0.1	22±1	15±1	34±1

Barbed Tape External Diameter (mm)	Length Per Roll (m)	No. of Spiral Turn per coil	Clips per 2 Spiral Turn	Barbed Tape Thickness (mm)	Internal Line Wire Diameter (mm)
500	8	56	5	0.5	2.5
700	10	56	5	0.5	2.5
1000	15	56	5	0.5	2.5

# EC EXCEL WeldFence



DURABILITY

Through GALFAN WIRE technology, EC EXCEL WeldFence has increased life span and resistance against corrosion from air, moisture and sunshine.

**STRENGTH** 

EC EXCEL WeldFence is made of high tensile strength GALFAN WIRE, Electrically resistance Welded together to provide strong mesh panel.

ELEGANCE

EC EXCEL WeldFence is designed to simple geometry, neat designs and aesthetically harmonious with any environment.

**RIGIDITY** 

EC EXCEL Welded Fence Panel has been "rolled" into a wedge at the top and bottom with the latest anticorrosive methods to improve the rigidity of the fence panel.

LOW MAINTENANCE

Low maintenance needed with resistance to deformation of EC EXCEL welded fence panel. Lasting protection against rust and corrosion.

EASY INSTALLATION

EC EXCEL Mesh Panel and Fence Panel come complete with matching predrilled fence posts and panel clips, can be easily installed / ready for quick installation.

VARIATION

EC EXCEL WeldFence has varies of fencing choices to meet customers needs.

#### APPLICATION

- Gated communities , Residential Housing Area
   & condominium.
- School, University & Hospitals
- Immigrations & airport terminal

- Military base, prisons
- Factories, warehouse & industrial sites
- · Golf courses, sport stadium & race track

# WHAT IS GALFAN WIRE?

- Wide range of value-added wire by products
- Alloy of Zinc Aluminium
- Presence of Aluminium in the GALFAN WIRE coating leads to an adherent aluminium oxide layer formed on the surface.
- This protective aluminium oxide layer slows down the reaction of the zinc in the alloy and increases the lifespan of Galfan wire considerably.













EC EXCEL WeldFence	HEIGHT OF	WIDTH OF	STEEL WIRE DIAMETER	MESH SPACING		POST LENGTH
Model	FENCE	FENCE		VERTICAL	HORIZONTAL	(60mm DIA CHS)
ECWF 1200 A	1.2m	2.4m	4-6mm	50mm	150mm	1500mm
ECWF 1500 A	1.5m					2000mm
ECWF 1800 A	1.8m					2400mm
ECWF 2100 A	2.1m					2700mm
ECWF 2400 A	2.4m					3000mm







# InnoGal Gabion

The innovation of InnoGal Wire with added value of galvanized wire The coating layer consists of 95% of zinc and 5% of aluminium. Ductile and withstands heavy deformation.







# Advantages

**Durability** 4x times resistance higher than zinc galvanized wire

**Strength** The tensile strength is 40% higher than zinc galvanized wire

**Rigidity** Provided ultimate interlink rigid structure

**Finishing** Firm and aesthetics finishing

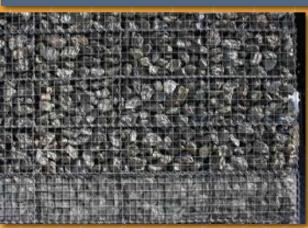
Cost Handling easier, installation faster, cost effective

Formability Improved, Increased and adequate formability and heavy deformation

**Environmental Friendly** No need post treatment which harmful to environment

Particular	Data		
Mesh Spacing	8cm x 8cm (standard) / custom make		
Nominal wire diameter	± 3.0mm - 6.0mm		
Composition For Steel	0.10% Carbon Maximum		
Type of Coating	Zinc 95% + Aluminium 5%		
Wire Tensile Strenth	650 - 800 MPA		
Weld Shear Strength	55% - 70% of Wire Tensile		





# Project References



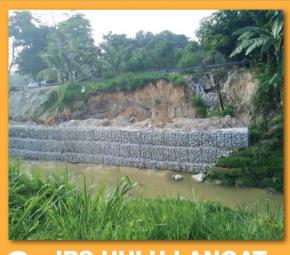






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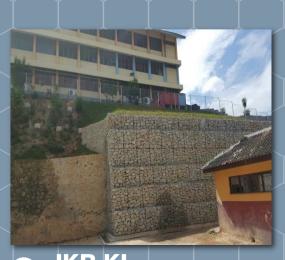




JPS HULU LANGAT
SITE TAMAN DESA IMPIAN



**JPS KLUANG** 



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