EMGEE®

...technology unlimited

TURBO™

F Type

Thermoset Insulated & Modified P.A. Sheathed Flat Cable for Submersible Pump Motors

Introduction

"Emgee" a unit of Mangal Chand Group produces high performance copper Winding Wires, TPR/PVC/PE insulated wire and cables.

Emgee Cables is also India's leading manufacturer of Submersible Winding Wires & Cables and enjoys an enviable reputation as a quality manufacturer.

The company has most modern computerized fully automatic lines supported by an excellent forward & backward integrations including Wire Drawing with online annealing, High Speed Bunchers, Automatic packing machines and very sophisticated online & offline testing systems.

Emgee Cables & Communication limited is a public company, with shares listed on stock exchange. The company is ISO certified and has all the relevant quality certifications.

Company's Submersible Winding Wires / Cables are approved by major pump manufacturers viz Caprari, Ustunel, Impo, KSB, Shakti, Texmo, Duke, Pluga etc.

EMGEE CABLES & COMMUNICATION LTD. INDIA

Admn. Off. : T-16, 3rd Floor, "Alankar Plaza", Central Spine, Vidhyadhar Nagar, Jaipur - 302 023

T: +91 141 3240104-05, 3277104 | Fax : 91-141-2230520

Contact

info@emgeecables.com
eccl.jpr@gmail.com
www.emgeecables.com

EMGEE ...technology unlimited

TURBO™

Submersible Flat Cable (Double Sheathed-F)

Characteristics:-

Designation • ---------- • Thermoset Insulated & Modified P.A. Sheathed (5 Layers) Three Core Flat Submersible Cables

Construction Characteristics

Conductor flexibility • ---------- • Flexible bunched Electrolytic grade copper as per class 2 or 5 of IS: 8130/1984

Sheath Colour • ---------- • Blue

Conductor Material • ---------- • Annealed Bare copper

Dimensional Characteristics

Dimensional Standards • ---------- • See table

Electrical Characteristics

Rated Voltage Uo/U (Um) • ---------- • 450/750 V

Test voltage • ---------- • 3.0 KV for five minutes

Short Circuit Temp. • ---------- • 250°C

Mechanical Characteristics

Cable flexibility • ---------- • Flexible

Min. bending radius • ---------- • 4 X D ~ 6 X D

Usage Characteristics

Flame retardant • ---------- • as per IS: 694/1990

Chemical resistance • ---------- • Accidental

Oil resistance • ---------- • Yes

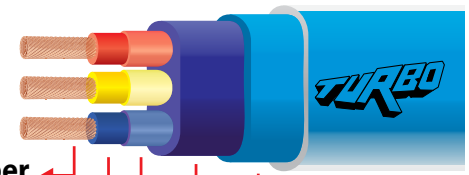
Operating temperature, range • ---------- • (-)40 (+)90°C

Weather resistance • ---------- • Very good

Min. ambient temp. • ---------- • -40°C ~ -15°C

Max operation temp. • ---------- • +95°C in Fixed Protected installation.

Minimum laying temp. • ---------- • -40°C



99.9% Pure Copper
Crosslink Thermoset
Coating for Extra Protection
Low Moisture Absorption
Chemical Resistant
Scratch Resistant Modified PA Coating

Certification • ---------- •

Norms • ---------- • IS:694, BS6500, IEC-60227

Description: EMGEE introduces the 3rd Generation Performance enhancing Submersible Cable with Stunning Performance features for intelligent tomorrow.

Features:

- Double Sheathed
- Tough & Excellent Mechanical Resistance.
- U.V. and Internal Heat Resistant upto 95°C
- Reduces Power Consumption.
- Sustains Voltage Fluctuations.
- Excellent Resistance to Chemicals, Oxides, Oil & Soil.
- Low water / moisture absorption.
- Fully protected inner core with Safety Walls to prevent water penetration and heat transfer to another core.

Technical Specifications:

Conductor		Insulation	Sheath	Conductor Resistance @20°C (max) ohms/km.	Current Carrying Capacity @40°C Amps.	Water Moisture Absorption	Polymer Resistant to	Temp. Ratings (for all sizes)	
Area sq.mm.	No. of Strands/ Dia. mm.	Thickness (Nom) mm.	Thickness (Nom) mm.					Condition	Temp
1.5	22/0.3*	0.60	0.90	12.10	25	Less than 0.5 mg/cm2	Will not decompose in Soil, Oil, Chemical, Metal Oxides etc.	Normal	90°C
2.5	36/0.3*	0.70	1.00	7.410	33			Overload	135°C
4	56/0.3**	0.80	1.10	4.950	40			Short Circuit	250°C
6	84/0.3**	0.80	1.10	3.300	50			Cold	-40°C
10	140/0.3**	1.00	1.20	1.910	70			90% Retention (Elongation/ Tensile)	@ 105°C
16	226/0.3**	1.00	1.30	1.210	90				
25	354/0.3**	1.20	1.50	0.780	120				
35	495/0.3**	1.20	1.60	0.554	145				

Note: 1. The number of Wires and Strands Diameter will be such as to satisfy the requirement of conductor resistance as per IS 8130:1984
2. Sizes 16 sqmm, 25 sqmm, 35 sqmm are without SafetyWall.
*As per class 2 of IS:8130/1984 **As per class 5 of IS:8130/1984

Current Carrying Capacity (Amps) Comparison Chart:

at standard voltage 50Hz cycles and ideal conditions as per IS:8034/2002

S.No.	Cable Type	Size							
		1.5	2.5	4	6	10	16	25	35
1	PVC Insulation	14	18	26	31	42	57	72	90
2	Turbo	19	27	40	55	80	105	130	150