

# TECHNICAL DATA SHEET



## EVOEL FMs-UV-0H-SMART

Corrugated halogen-free conduits  
With UV-stabilisation

Conformity:  
EN 61386-1  
EN 61386-22  
Classification: 33433

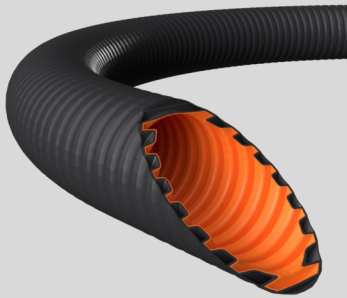
### PRODUCT DESCRIPTION



Flexible electrical installation conduit made of a special, halogen-free material. Ideally suitable for outdoor installations exposed to direct sunlight. The conduit has a sheath made of a plasticised material which is modified for resistance against UV radiation. The conduit features medium mechanical resistance. The special structure of the inner surface of the conduit with outstanding gliding properties allows to considerably extend the cable-pulling distances and reduce the length of installation work.

The colour of the sheath of the conduits is black (RAL 9004), with an orange inner gliding layer.

Material: halogen-free material, compression strength 750 N/5cm, temperature resistance from - 25 to +105 °C, UV-stabilised, self-extinguishing, corrosion-resistant. Conduit is produced according to: EN 61386-1; EN 61386-22 standard specifications.



### APPLICATION AREA

The conduits are specifically recommended for outdoor installations, can be used for installations in hollow walls, partitions, or suspended ceilings in public buildings: schools, kindergartens, hospitals, hotels, theatres, cinemas, museums, stadiums, arenas, malls, airports, railway stations, and office buildings. The conduit withstands long-term exposure to sunlight. UV-resistance is guaranteed for 10 years. Especially suitable for protection of facade lighting cables.



**Compression strength:**  
750 N/5cm

### PRODUCT DIMENSIONS

Nominal size	16	20	25	32	40	50
Outside OD, mm	16.0	20.0	25.0	32.0	40.0	50.0
Inside ID, mm	10.8	13.6	17.8	23.1	30.0	38.4
Roll, m	50	50	50	50	25	25
On pallet, m	2400	1500	1000	600	350	300
Bend radius ≥ mm	48	60	75	96	160	200

### PRODUCT PARAMETERS

Parameter	Value	Test method
Material	Special plastic	
UV radiation resistance	10 years	
Combustion	Flame retardant, self-extinguishing	EN 61386-1
Impact strength, J at 25°C	>2 J	EN 61386-1
Compression strength, N/5cm	>750	EN 61386-1
Temperature resistance, min/max °C	-25 .. 105 °C	EN 61386-1
Flexibility	Pliable	EN 61386-1

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EVOEL classification codes according to EN 61386-1

Digit in the classification code										
1		2		3		4		5		
Compression strength		Impact strength		Minimum operating temperature t°		Maximum operating temperature t°		Flexibility		
Codification number	<b>1</b>	125N very low	<b>1</b>	0.5J (0.5 kg/100mm) very low	<b>1</b>	+5°C	<b>1</b>	+60°C	<b>1</b>	rigid
	<b>2</b>	320N low	<b>2</b>	1J (1.0 kg/100mm) low	<b>2</b>	-5°C	<b>2</b>	+90°C	<b>2</b>	pliable
	<b>3</b>	750N medium	<b>3</b>	2J (2.0 kg/100mm) medium	<b>3</b>	-15°C	<b>3</b>	+105°C	<b>3</b>	pliable/self recovering
	<b>4</b>	1250N high	<b>4</b>	6J (2.0 kg/300mm) high	<b>4</b>	-25°C	<b>4</b>	+125°C	<b>4</b>	flexible
	<b>5</b>	4000N very high	<b>5</b>	20.4J (6.8 kg/300mm) very high	<b>5</b>	-45°C	<b>5</b>	+150°C		
							<b>6</b>	+250°C		
							<b>7</b>	+400°C		

3	3	4	3	3
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**Example:** electrical installation conduit with medium compression strength (3), medium impact strength (3), minimum operating temperature -25°C (4), maximum operating temperature +105°C (3), pliable/self recovering (3).

## STANDARTS APPLICABLE TO CONDUITS

Number	Title
EN 61386-1	Conduit systems for cable management - Part 1: General requirements.
EN 61386-21	Conduit systems for cable management - Part 21: Particular requirements. Rigid conduit systems.
EN 61386-22	Conduit systems for cable management - Part 22: Particular requirements. Pliable conduit systems.
EN 61386-23	Conduit systems for cable management - Part 23: Particular requirements. Flexible conduit systems.
EN 50267-2-2	Common test methods for cables under fire conditions - Test on gases evolved during combustion of materials from cables. Parts 2-2: Procedures. Determination of degree of acidity of gases for materials by measuring pH and conductivity.
EN 61034-2	Measurement of smoke density of cables burning under defined conditions. Part 2: Test procedure and requirements.
EN 60332-1-2	Tests on electric and optical fibre cables under fire conditions. Parts 1-2: Test for vertical flame propagation for a single insulated wire or cable. Procedure for 1 kW pre-mixed flame.
EN 60332-1-3	Tests on electric and optical fibre cables under fire conditions. Parts 1-3: Test for vertical flame propagation for a single insulated wire or cable. Procedure for determination of flaming droplets/particles.
EN 61386-24	Conduit systems for cable management - Part 24: Particular requirements for conduit systems buried underground.