

# TECHNICAL DATA SHEET



## EVOEL FM<sub>s</sub>-0H-SMART

sheathed medium compression strength  
corrugated halogen-free conduits

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

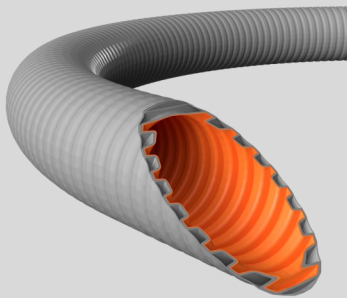
### PRODUCT DESCRIPTION



Flexible conduit made of a special, halogen-free material, ideally suitable for installations in concrete. The conduit has a sheath made of a plasticised material and therefore features a medium impact strength and water 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.

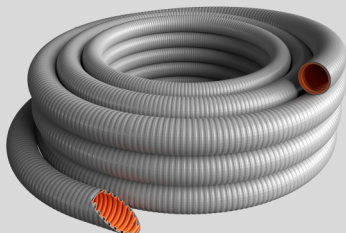
The colour of the cable sheath is light grey (RAL 7035) with an orange inner gliding layer. Material: a special plastic, compression strength 750 N/5cm, temperature-resistance from - 25 to +105°C, self-extinguishing, halogen-free, corrosion-resistant.

Conduit is produced according to: EN 61386-1; EN 61386-22 standard specifications.



### APPLICATION AREA

The conduits are specifically recommended for installations in concrete, can be used for installations in hollow walls, partitions, or suspended ceilings. Conduits of this type are the best solution for exposed and concealed installations, underground installations, connection of equipment or machine tools in schools, kindergartens, hospitals, hotels, theatres, cinemas, museums, stadiums, arenas, shopping-centres, airports, railway terminals, and office buildings.



**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	11.1	14.5	18.4	23.9	30.7	39.4
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	
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	
Codification number	Compression strength	Impact strength		Minimum operating temperature t°		Maximum operating temperature t°		Flexibility		
	<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			

<b>3</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>3</b>
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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 ca-
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
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
EN 61386-24	Conduit systems for cable management - Part 24: Particular requirements for conduit systems buried underground.