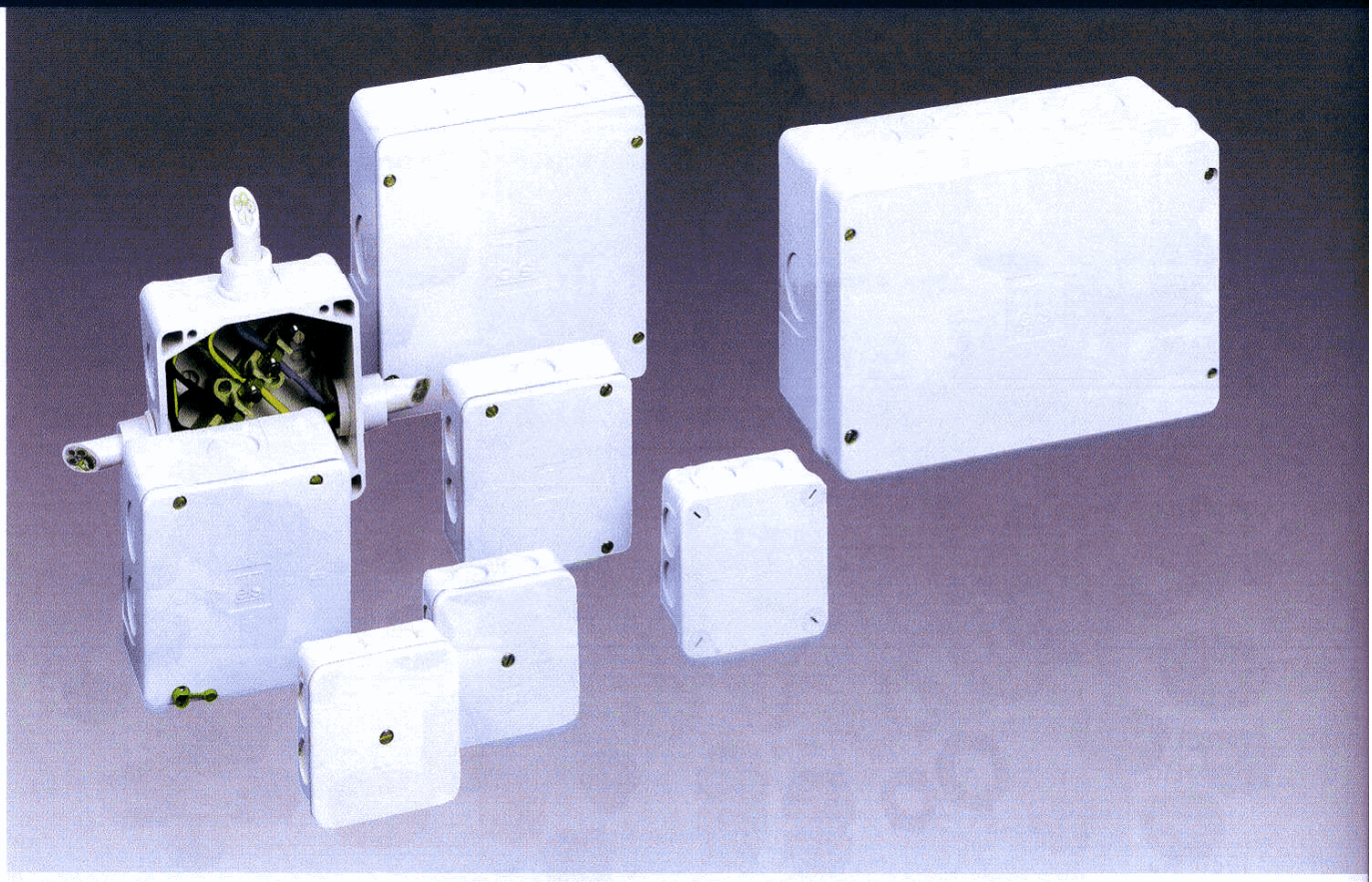
els spelsberg

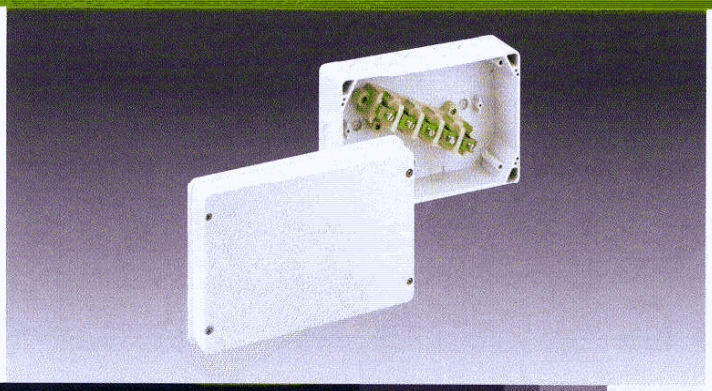
Junction boxes WK Series to IP 54 - 690 V

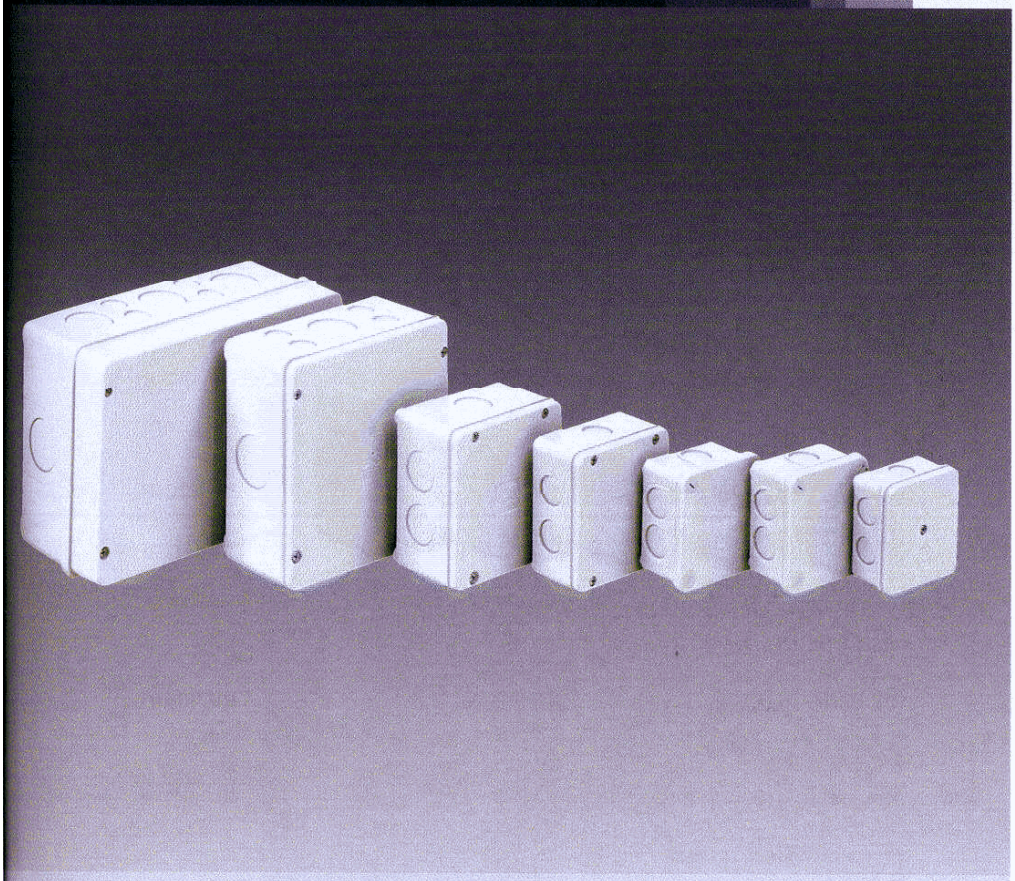
Suitable for use in business premises with fire hazards, to VDE 0100 Part 482



- Ingress protection IP 54
- Totally halogen-free duroplastic
- Glow wire test complying with VDE 0471 to 960°C
- Cable diameters of 2,5² to 25²
- VDE approved

Duroplastic has many advantages. It is halogen free. has the highest flammability safety level V0, good heat-resistance, very good light stability and a particularly high resistance to chemicals, especially greases and oils.

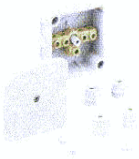
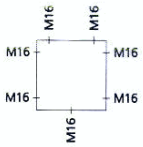
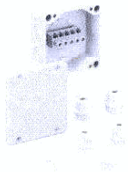
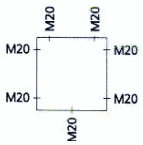
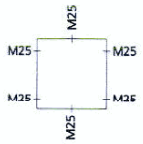
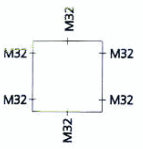




Overview of Properties of Materials Used in WK-Series

Used in products:	Weak acid	Strong acid	Weak alkali	Strong alkali	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia	Vegetable oil	Animal oil	Free from halogens, heavy metals, PVC and silicon	Combustion behaviour to VDE 0471/UL 94	Max. ambient temperature, brief (1h)	Continuous operating temperature range
WK housing	◗	◗	◗	◗	●	●	●	●	●	●	●	●	Yes	960°C / -	+90°C	-40°C to +70°C
Fitting terminal blocks of WK series except 4 mm2	⊗	⊗	◗	⊗	●	●	●	●	●	●	●	●	Yes	960°C / V-0	+120°C	-40°C to +100°C

● = resistant ◗ = Partially-resistant ⊗ = Not-resistant

Type	Description	Order No.	Packing Qty
WK 007 80 x 80 x 38 mm	IP 54 junction box, U_i=400 V, **Duroplastic, halogen-free** With IP 54 adapters and M16 sealing plugs Seal range 6-10 mm		
 	**WK 007 L – empty**, grey	402 907 01	60 / 5
	WK 007 – 2,5², grey, 5 pole screw terminal 2,5 mm²	402 407 01	60 / 5
WK 040 87 x 87 x 45 mm	IP 54 junction box according to E DIN IEC 60998-2-5, U_i=690 V, **Duroplastic, halogen-free** With IP 54 adapters and M20 sealing plugs Seal range 8-13,5 mm		
 	**WK 040 L – empty**, grey	404 907 01	60 / 3
	WK 040 – 4², grey, 5 pole screw terminal 4 mm²	404 407 01	60 / 3
	Recommended Accessories: IP 68 cable gland with lock nut M20 (seal range 6 - 12 mm)	227 420 01	50
WK 060 100 x 100 x 50 mm	IP 54 junction box according to E DIN IEC 60998-2-5, U_i=690 V, **Duroplastic, halogen-free** With IP 54 adapters and M25 sealing plugs Seal range 9-18,5 mm		
 	**WK 060 L – empty**, grey	406 906 01	30 / 3
	WK 060 – 6², grey, 5 pole screw terminal 6 mm²	406 406 01	30 / 3
	Recommended Accessories: IP 68 cable gland with lock nut M25 (seal range 7 - 16 mm) Lead seal set	227 425 01 450 010 01	25 10
WK 100 115 x 115 x 66 mm	IP 54 junction box according to E DIN IEC 60998-2-5, U_i=690 V, **Duroplastic, halogen-free** With IP 54 adapters and M32 sealing plugs Seal range 13-23 mm, with lead seal set		
 	**WK 100 L – empty**, grey	410 906 01	20 / 1
	WK 100 – 10², grey, 5 pole screw terminal 10 mm²	410 406 01	20 / 1
	Recommended Accessories: IP 68 cable gland with lock nut M32 (seal range 11 - 21 mm)	227 432 01	10

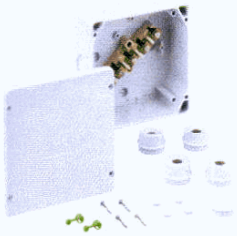
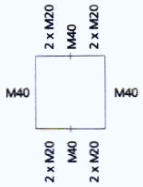
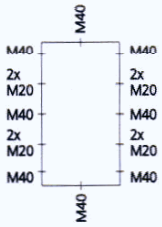
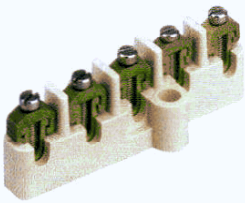
Type	Description	Order No.	Packing Qty
WK 160 165 x 165 x 76 mm	IP 54 junction box according to E DIN IEC 60998-2-5, U_i=690 V, **Duroplastic, halogen-free** With IP 54 adapters and M40 sealing plugs Seal range 17-30 mm, with lead seal set		
 	**WK 160 L – empty**, grey	416 912 01	12 / 1
	WK 160 – 16², grey, 5 pole screw terminal 16 mm²	416 412 01	12 / 1
	Recommended Accessories: IP 68 cable gland with lock nut		
	M20 (seal range 6 - 12 mm)	227 420 01	50
	M40 (seal range 16 - 28 mm)	227 440 01	5
WK 250 256 x 171 x 106 mm	IP 54 junction box according to E DIN IEC 60998-2-5, U_i=690 V, **Duroplastic, halogen-free** With IP 54 adapters and M40 sealing plugs Seal range 17-30 mm, with lead seal set		
 	**WK 250 L – empty**, grey	425 916 01	6 / 1
	WK 250 – 25², grey, 5 pole screw terminal 25 mm²	425 416 01	6 / 1
	Recommended Accessories: IP 68 cable gland with lock nut		
	M20 (seal range 6 - 12 mm)	227 420 01	50
	M40 (seal range 16 - 28 mm)	227 440 01	5
WK Terminals	Junction terminals, U_i=400V / 690V, for		
	WK 007 — 5-pole-2,5²	460 525 01	1
	WK 040 — 5-pole-2,5²/4²	840 004 01	10
	WK 060 — 5-pole-6²	460 506 01	1
	WK 100 — 5-pole-10²	460 510 01	1
	WK 160 — 5-pole-16²	460 516 01	1
	WK 250 — 5-pole-25²	460 535 01	1
IP 68 cable glands	IP 68 cable gland with strain relief and locknut		
	M16 — 8,0 mm — 4 - 10 mm	227 416 01	75
	M20 — 9,0 mm — 6 - 12 mm	227 420 01	50
	M20 — 9,0 mm — 7 - 14 mm	227 421 01	30
	M25 — 11,0 mm — 7 - 16 mm	227 425 01	25
	M32 — 11,0 mm — 11 - 21 mm	227 432 01	10
	M40 — 11,0 mm — 16 - 28 mm	227 440 01	5

Table 2: Overview of Properties of Materials Used in els-Installation Systems

Material:	Used in products:	Weak acid	Strong acid	Weak alkali	Strong alkali	Alcohol	Petrol	Benzene	Mineral oil	Diesel	Ammonia	Vegetable oil	Animal oil	Free from halogens, heavy metals, PVC and silicon	Combustion behaviour to VDE 0471/UL 94	Max ambient temperature, brief (1h)	Continuous operating temperature range
Polystyrene, impact resistant	AK system, A-box, TK-PS, HF	●	◗	●	●	●	⊗	⊗	◗	⊗	●	◗	◗	Yes[1]	960°C / V-2	+80°C	-40°C to +70°C
Polycarbonate, glass-fibre reinforced	Nautic, STV / STG, TK-PC, BM, AKi	●	●	⊗	⊗	●	●	⊗	●	◗	⊗	●	●	Yes	960°C / V-2	+130°C	-35°C to +120°C
Polycarbonate, transparent	Lid AK, small distribution units, STV and TK	●	●	⊗	⊗	◗	◗	⊗	●	◗	⊗	●	●	Yes	850°C / V-2	+130°C	-35°C to +120°C
Polyethylene	Connectors, twist nipples, Red series, box lower part	●	●	●	●	●	◗	⊗	◗	◗	●	●	●	Yes	650°C / HB	+100°C	-40°C to +70°C
Polypropylene	Red series lids, IBT HW range, HP series	●	◗	●	◗	●	◗	◗	●	◗	●	●	●	Yes[1]	960°C / V-2	+120°C	-30°C to +100°C
Polypropylene, flame-resistant, halogen-free	Halogen-free types: HW	●	◗	●	◗	●	◗	◗	●	◗	●	●	●	Yes	960°C / V-2	+120°C	-30°C to +100°C
Polyurethane, version 1	Lid seal, TK, HF, BM, AKII, AKL	◗	◗	◗	◗	◗	◗	◗	●	◗	◗	●	●	Yes	650°C / —	+110°C	-35°C to +80°C
Aluminium Al 12 Si	AL	●	◗	●	●	◗	●	⊗	●	●	●	◗	◗	Yes	—	+130°C	-40°C to +100°C
Duroplastic	WK housing	◗	◗	◗	◗	●	●	●	●	●	●	●	●	Yes	960°C / V-0	+90°C	-40°C to +70°C
Duroplastic	Fitting terminal blocks of WK series except 4 mm²	⊗	⊗	◗	⊗	●	●	●	●	●	●	●	●	Yes	960°C / V-0	+120°C	-40°C to +100°C
Polyamide 6, glass-fibre reinforced	Cable glands IP 68	●	◗	●	●	●	●	◗	●	●	●	◗	◗	Yes	750°C / HB/V-2	+200°C	-30°C to +100°C
Thermoplastic elastomer	Double membrane connectors, membrane seal (A-box 025/040, 2K-12)	●	◗	●	◗	●	◗	◗	◗	◗	◗	●	●	Yes	750°C / HB	+110°C	-30°C to +80°C

● = resistant ◗ = Partially resistant ⊗ = Not resistant

1) The basic material is halogen-free. Low proportions (up to approx. 6%) are added to the base material to improve flame resistance.

The materials used by Spelsberg have been subjected to weather testing to DIN 53 387/1000 hour tests by the "State Testing Office in Dortmund". The polycarbonate with 15% glass-fibre reinforcement used in the Nautic and STV series had the optimum result. This material also passed the UV resistance test to UL 746 C unconditionally.

Summary: In principle in selecting the installation site, as well as the protection class, the climatic conditions and the occurrence of chemical influences should be assessed. Data on material properties and chemical resistance of materials used is given in the tables.