

User Manual and Data for Pipe Support System from DBK



Load Capacity: The pipe support system is designed to carry a maximum load of 25 kg per strap, e.g., with a maximum of 25-30 cm gravel coverage over the pipe (gravel 11 kN/m³). For deeper installation, a lighter covering material such as Sundolitt or similar is recommended.

The system accommodates pipe slopes up to 60‰ (per mille). For increased lateral strength during installation, the internal hollow thread of the push/pull rod should be cut before mounting into the base/strap holder.



Ambient Temperature: Designed for operating temperatures from -10°C to +80°C.



Installation in Ground Slab: The push/pull rod may be cast directly into in-situ concrete, without additional flanges (e.g., in slab-on-ground construction). It should be embedded with a minimum of 40 mm to ensure sufficient pull-out strength. Rods should be trimmed to the correct height above insulation prior to rebar placement, as the system must not be laterally loaded.



Fixed and Loose Straps: The system can function with either fixed or loose straps. For fixed straps (typically at couplings), seal the top triangle between strap, strap holder, and pipe using Tec7 or similar to prevent slipping. Loose straps are placed between fixed ones to allow for pipe flexibility.

(Typically: fixed straps every 3 m, loose straps in between every 0.5 m.)



Connection to Mount: The push/pull rod is screwed into the bottom of the strap holder and may be extended via internal threading. Thread until it clicks into place with locking tabs - do not overtighten in reverse, as the tabs are only intended to secure rods during installation.



»KLIK« Connection to Pipe: The strap is pulled over the pipe, and the holder is clicked into place. Ensure the strap is pressed downward until the locking tabs audibly click and lock.



Reuse and Replacement: If locking tabs on straps or rods are damaged, the component must be replaced. Do not reuse parts that have been previously assembled.



Ceiling and Wall Mounting (Plumbing): The strap holder may also be mounted to ceilings or walls using a 6.3 mm concrete screw predrilled with a 5 mm bit. (See screw datasheet.)



Adjusting Strap Length: Screw the push/pull rod into the ceiling-mounted strap holder, then fasten another holder to the opposite rod end. Fine height adjustment is possible by turning the strap holder back up to 1 full turn (max 5 mm).



Installing Pipe in Ceiling-Mounted Strap Holder: Insert pipe into the hanging holder, which accommodates Ø110/Ø160 pipes. Pull strap over pipe and click into holder with downward pressure to complete ceiling installation.



Wall Mounting (Vertical Stacks): For wall mounting, the strap holder is rotated so that the pipe-facing surface curves outward. Screw directly into the wall, mount the pipe, secure with strap, and click into holder. Apply top sealant as for fixed strap. Not for use with horizontal wall-mounted pipes.



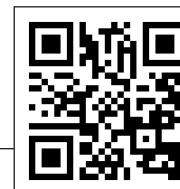
Service Life: Strap supports have a 100+ year life expectancy, exceeding that of plastic pipes. They are corrosion-resistant and acid-proof. Push/pull rods and holders are non-elastic.

DBK

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Dansk Byggekomponent ApS develops and produces cost-efficient and serially-produced products for installation in building constructions within soil, concrete and sewage.

Presentation movie



Akulon® F223-D

PA6

Low/Medium Viscosity, General purpose, Injection Molding, Food Contact Quality

Print Date: 2020-08-17

Properties	Typical Data	Unit	Test Method
Rheological properties			
	dry / cond		
Molding shrinkage (parallel)	1.1 / *	%	ISO 294-4
Molding shrinkage (normal)	1.1 / *	%	ISO 294-4
Mechanical properties			
	dry / cond		
Tensile modulus	3200 / 1000	MPa	ISO 527-1/-2
Nominal strain at break	20 / >50	%	ISO 527-1/-2
Yield stress	85 / 45	MPa	ISO 527-1/-2
Yield strain	4 / 25	%	ISO 527-1/-2
Flexural modulus	2600 / -	MPa	ISO 178
Flexural strength	100 / -	MPa	ISO 178
Charpy impact strength (+23°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	N / N	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	4.5 / 35	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	2.5 / 5	kJ/m ²	ISO 179/1eA
Thermal properties			
	dry / cond		
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	60 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	160 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.9 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	1 / *	E-4/°C	ISO 11359-1/-2
Burning Behav. at 1.5 mm nom. thickn.	V-2 / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10

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Properties	Typical Data	Unit	Test Method
Burning Behav. at thickness h	V-2 / *	class	IEC 60695-11-10
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Oxygen index	26 / *	%	ISO 4589-1/-2
Glow Wire Flammability Index GWFI	900 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	1.5 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	875 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	0.75 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	825 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	1.5 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	875 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1 / -	mm	IEC 60695-2-13
Electrical properties	dry / cond		
Relative permittivity (100Hz)	3.4 / 15	-	IEC 60250
Relative permittivity (1 MHz)	3.1 / 4.7	-	IEC 60250
Dissipation factor (100 Hz)	65 / 3900	E-4	IEC 60250
Dissipation factor (1 MHz)	165 / 1300	E-4	IEC 60250
Volume resistivity	1E13 / 1E10	Ohm*m	IEC 60093
Surface resistivity	- / 1E14	Ohm	IEC 60093
Electric strength	30 / 20	kV/mm	IEC 60243-1
Comparative tracking index	* / 600	V	IEC 60112
Other properties	dry / cond		
Water absorption	10 / *	%	Sim. to ISO 62
Humidity absorption	2.8 / *	%	Sim. to ISO 62
Density	1130 / -	kg/m ³	ISO 1183
Material specific properties	dry / cond		
Viscosity number	132 / *	cm ³ /g	ISO 307, 1157, 1628

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Akulon® K224-G6

PA6-GF30

30% Glass Reinforced

Print Date: 2019-04-11

Properties	Typical Data	Unit	Test Method
Rheological properties dry / cond			
Molding shrinkage (parallel)	0.3 / *	%	ISO 294-4
Molding shrinkage (normal)	0.9 / *	%	ISO 294-4
Mechanical properties dry / cond			
Tensile modulus	9500 / 6000	MPa	ISO 527-1/-2
Stress at break	180 / 110	MPa	ISO 527-1/-2
Strain at break	3.5 / 7	%	ISO 527-1/-2
Flexural modulus	8600 / -	MPa	ISO 178
Flexural strength	235 / -	MPa	ISO 178
Charpy impact strength (+23°C)	90 / 110	kJ/m ²	ISO 179/1eU
Charpy impact strength (-30°C)	75 / 75	kJ/m ²	ISO 179/1eU
Charpy notched impact strength (+23°C)	12 / 25	kJ/m ²	ISO 179/1eA
Charpy notched impact strength (-30°C)	11 / 11	kJ/m ²	ISO 179/1eA
Thermal properties dry / cond			
Melting temperature (10°C/min)	220 / *	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	207 / *	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	220 / *	°C	ISO 75-1/-2
Coeff. of linear therm. expansion (parallel)	0.2 / *	E-4/°C	ISO 11359-1/-2
Coeff. of linear therm. expansion (normal)	0.7 / *	E-4/°C	ISO 11359-1/-2
Burning Beh. at 1.5 mm nom. thickn.	HB / *	class	IEC 60695-11-10
Thickness tested	1.5 / *	mm	IEC 60695-11-10
Burning Beh. at thickness h	HB / *	class	IEC 60695-11-10

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Properties	Typical Data	Unit	Test Method
Thickness tested	0.75 / *	mm	IEC 60695-11-10
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12
GWFI (Thickness (1) tested)	2 / -	mm	IEC 60695-2-12
Glow Wire Flammability Index GWFI	700 / -	°C	IEC 60695-2-12
GWFI (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-12
Glow Wire Ignition Temperature GWIT	725 / -	°C	IEC 60695-2-13
GWIT (Thickness (1) tested)	2 / -	mm	IEC 60695-2-13
Glow Wire Ignition Temperature GWIT	725 / -	°C	IEC 60695-2-13
GWIT (Thickness (2) tested)	1.5 / -	mm	IEC 60695-2-13

Electrical properties

dry / cond

Relative permittivity (100Hz)	3.5 / 20	-	IEC 60250
Relative permittivity (1 MHz)	3.3 / 5	-	IEC 60250
Dissipation factor (100 Hz)	50 / 3000	E-4	IEC 60250
Dissipation factor (1 MHz)	150 / 1200	E-4	IEC 60250
Volume resistivity	1E13 / 1E11	Ohm*m	IEC 60093
Surface resistivity	* / 1E14	Ohm	IEC 60093
Electric strength	30 / 25	kV/mm	IEC 60243-1
Comparative tracking index	* / 600	V	IEC 60112

Other properties

dry / cond

Water absorption	6.3 / *	%	Sim. to ISO 62
Humidity absorption	1.9 / *	%	Sim. to ISO 62
Density	1350 / -	kg/m ³	ISO 1183

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