



Conveyor systems X45, XS, XL, X85, XH, XK, XB, XT

FlexLink conductive products

The FlexLink conductive products are to be used in applications where there is a demand for conveyor equipment to improve productivity in static sensitive environments, but where some particle wear generation will not affect product quality.

Following conductive products are available:

- Plain chain (X45, XS, XL, X85, XH, XK, XB, XT)
- Friction top chain (X45)
- Slide rail
- Guide rail cover
- X85 pallet + components

Configured products:

- X45 standard conveyors
- X85 conveyors
- XT modules
- XT Compact modules
- Pallet elevators

Conductive material characteristics

- Carbon loaded: high conductivity.
- Some particle generation may occur.
- Maximum chain tension is lower compared to FlexLink standard chains. See table on page 2. See also the FlexLink Systems chain guide 4301.
- Higher particle generation than for non-conductive chains.

FlexLink ISD (dissipative) products

The FlexLink ISD products are to be used in applications where there is a demand for improved cleanliness and productivity/quality when manufacturing static sensitive parts. The ISD materials do not build up static electricity and do discharge charged products transported on the conveyor. The clean and static dissipative features are inherent in the material and will not disappear over time.

Following ISD products are available:

- Plain chain (XS, XL, X85, XH, XT)
- Steel top chain (XK)
- Roller top chain (X85)
- Guide rail cover
- Wheel bend/disks (XS, XL, X85, XH) on RFQ
- Drive sprockets on RFQ

Configured products:

- XT Compact modules

ISD material characteristics

- Inherent characteristics do not lose effectiveness over time.
- No fast discharges. This reduces the risk of sensitive electronic products being damaged.
- Prevents attraction of dust or debris.
- Does not shed charged particles.
- Require a relative humidity over 40%.
- Maximum chain tension is lower compared to FlexLink standard chains. See table on page 2. See also the FlexLink Systems Chain guide 4301.

Technical specifications - chain products

Conductive

Material is POM + carbon.

Surface resistivity is less than 10^5 ohm/sq.

ISD

Material is ISD POM.

Surface resistivity is 10^{10} – 10^{11} ohm/sq.

Volume resistivity is 10^9 – 10^{10} ohm cm.

When relative humidity is above 40%:

	Product	Permissible working tension (N)
C o n d u c t i v e	XUTP 3A35 EF	80
	XUTP 3A45 E	80
	XSTP 5 E	200
	XLTP 5 E	200
	XBTP 5A85 E	500
	XHTP 5 E	500
	XKTP 5 AE	1000
	XBTP 3A 175/195 E	500
	XTPP 5 EC	360
	5051585 (XT Compact)	72
I S D	XS	425
	XL	425
	X85	400
	XH	550
	XK	
	XT	450
	XT Compact	180

Technical specifications - slide rails

	Product	Material	
C o n d u c t i v e	XSCR 25 E	Ultra-high molecular weight polyethylene + carbon. Surface resistivity is less than 10^5 ohm/sq.	
	XLCR 25 E		
	XBCR 25 E/EB		
	XBCR 3 EA		
	XKCR 25 E		
	XTCR 25 E		
	XTGR 3 EB		
	I S D	XLCR 3 TA	Acid resistant stainless steel. Surface resistivity is less than 10^5 ohm/sq.
		XLCR 3/W30/W45/W90 TH	Hardened steel. Surface resistivity is less than 10^5 ohm/sq.
		XBCR 3/W30/W45/W90 TH	
XHCR 3/W30/W45/W90 TH			
XKCR 3/W30/W45/W90 TH			

Technical specifications - guide rails and covers

XLRS 3x10 T (guide rail)

Material is zinc plated steel.

Surface resistivity is less than 10^5 ohm/sq.

XLRT 3x23 E (cover)

Material is ultra-high molecular weight polyethylene + carbon.

Surface resistivity is less than 10^5 ohm/sq.

3926346 (cover)

Material is PA 6 + ISD.

Surface resistivity is less than 10^{12} ohm/sq.

Combining products

The properties obtained when combining standard, ISD and conductive chains with slide rail in various materials are shown in the table on next page.

Static hot spots

Certain spots in a conveyor are especially critical with regard to static build-up and contamination.

This includes:

- the entrances of wheel bends.
- drive and idler wheels.

A smoothly running conveyor is a necessity to get a clean conveyor. This requires careful installation of the slide rail, to avoid bumps.

Important

Low static levels and minimum particle generation is achieved by:

- using low conveyor speeds.
- keeping low loads on the conveyor chain.
- minimizing accumulation
- using a roller chain for accumulation, for reduced friction.

To design a static-free or low-contamination conveyor requires certain precautions to be taken. Contact your FlexLink Systems sales unit for additional engineering and design assistance.

Combinations of chain and slide rail

Chain material	Slide rail	Clean	Low static	Coefficient of friction	Comments
Standard	XLCR 25 U	+	-	0,15	Clean, may attract particles due to static build-up.
Standard	XLCR 25 H	+	-	0,15	Clean, may attract particles due to static build-up.
Conductive	XLCR 25 E	-	+	N/A	Some particle generation. Quickly dissipative, fast discharges.
Conductive	XLCR 3 TA	-	+	N/A	Conductive, fast discharges.
ISD	XLCR 25 U	+	+/-	0,2	Clean, no particle attraction. Slowly dissipative.
ISD	XLCR 25 E	+/-	+	0,3	Clean, very low statics. Dissipative.
ISD	XLCR 3 TA	+	+	0,3	Very clean and dissipative.

Conveyor chain

Plain chain POM + carbon				
C o n d u c t i v e	XUTP 3A45 E	Plain chain X45, conductive	See main catalogue 5147	
	XSTP 5 E	Plain chain XS, conductive	See Conveyor chain guide 4301	
	XLTP 5 E	Plain chain XL, conductive	See Conveyor chain guide 4301	
	XBTP 5A85 E	Plain chain X85, conductive	See Conveyor chain guide 4301	
	XHTP 5 E	Plain chain XH, conductive	See Conveyor chain guide 4301	
	Z-5983159 (XKTP 5AE)	Plain chain XK, conductive	See XKTP 5 in chain guide 4301	
	Z-5980084 (XBTP 3A 175 E)	Plain chain XB 175, conductive	See XBTP 3A 175 in chain guide 4301	
	Z-5981828 (XBTP 3A 295 E)	Plain chain XB 295, conductive	See XBTP 3A 295 in chain guide 4301	
	XTTP 5 EC	Plain chain XT, conductive	See Conveyor chain guide 4301	
	5051585	Plain chain XT Compact, conductive	See Conveyor chain guide 4301	
Friction top chain POM + carbon				
	XUTP 3A35 EF	Friction top chain X45, conductive	See main catalogue 5147	
I S D	Plain chain POM + ISD			
	3925932	Plain chain XS, ISD, natural color	See Conveyor chain guide 4301	
	3925934	Plain chain XL, ISD, natural color	See Conveyor chain guide 4301	
	3927481	Plain chain XL, ISD, gray	See Conveyor chain guide 4301	
	5110430	Plain chain X85, ISD, natural color	See Conveyor chain guide 4301	
	3925940	Plain chain XH, ISD, natural color	See Conveyor chain guide 4301	
	3927487	Plain chain XH, ISD, gray	See Conveyor chain guide 4301	
	5045771	Plain chain XT, ISD, natural color	See main catalogue 5147	
	5046328	Plain chain XT Compact, ISD, natural color	See Conveyor chain guide 4301	
	Steel top chain POM + ISD + SS			
		Z-5984106 (XKTP 5 ISD)	Steel top chain XK, ISD, natural color	See XKTP 5 TF in chain guide 4301
	Roller top chain, POM + ISD			
		5110488	Roller top chain X85, ISD, natural color	See Conveyor chain guide 4301

Slide rail

C o n d u c t i v e	XSCR 25 E	Slide rail, length 25 m UHMW-PE + carbon	See XSCR 25 in main catalogue 5147
	XLCR 25 E	Slide rail, length 25 m UHMW-PE + carbon	See XLCR 25 in main catalogue 5147
	XLCR 3 TA	Slide rail, length 3 m, stainless steel, acid resistant	See main catalogue 5147
	XLCR 3/W30/W45/W90 TH	Slide rail, length 3 m and bends, hardened steel	See main catalogue 5147
	XBCR 25 E/EB	Slide rail, length 25 m UHMW-PE + carbon	See main catalogue 5147
	XBCR 3 EA	Slide rail, length 3 m UHMW-PE + carbon	See main catalogue 5147
	XBCR 3/W30/W45/W90 TH	Slide rail, length 3 m and bends, hardened steel	See main catalogue 5147
	XHCR 3/W30/W45/W90 TH	Slide rail, length 3 m and bends, hardened steel	See main catalogue 5147
	XKCR 25 E	Slide rail, length 25 m UHMW-PE + carbon	See XKCR 25 U in main catalogue 5147
	XKCR 3/W30/W45/W90 TH	Slide rail, length 3 m and bends, hardened steel	See main catalogue 5147
	XTCR 25 E	Slide rail, length 25 m UHMW-PE + carbon	See main catalogue 5147
	XTCR 3 EB	Slide rail, length 3 m UHMW-PE + carbon	See main catalogue 5147

Guide rail

Conductive	XLRS 3x10 T	10 mm guide rail, length 3 m, zinc plated steel	See main catalogue 5147
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Guide rail cover

Guide rail cover for 15 mm guide rail			
Conductive	XLRT 3x23 E	Length 3 m UHMW-PE + carbon	See XLRT 3x23 in main catalogue 5147
ISD	3926346	Polyamide + ISD, length 3 m	See XLRT 3x23 in main catalogue 5147