



HB M45 CC

Dimensions (approx.)

Chain width:	4,5 mm
Chain thickness:	2 mm
Single tape widths:	13 mm

Features

Woven polyester / cotton tape in herringbone pattern; Suitable for post dyeing
Chain members from brass



Quality

Lateral strength	> 587 N
Lateral strength after reciprocation	> 529 N
Operating force	< 4 N
Reciprocation (durability)	> 500 cycles

(The quality data represent minimum performance levels)

Main uses

Jeans
Trousers
Pockets of light leather apparel

Fastness

		Change	Staining
Washing 60° C	(ISO 105-C06)	4	4
Water	(ISO 105-E01)	4	4
Dry-cleaning	(ISO 105-D01)	4	3...4
Light	(ISO 105-B02)	5	
Rubbing wet	(ISO 105-X12)		3... 4
Rubbing dry	(ISO 105-X12)		4

(These fastness grades represent minimum performance levels and, in practice, the majority of shades will exceed these levels)

Standards

EN 16732 – class B	CPSIA HR4040;
BS 3084:2006;	F963;
DIN 3416 – 19;	EN71;
Oeko-Tex 100 Class 1	QM System according BS EN ISO 9001:2008



Dimensions (approx.)

Chain width:	4,5 mm
Chain thickness:	2 mm
Single tape widths:	13 mm
Length of tape ends:	top: 20±2 mm bottom: 17±2mm

Features

Woven polyester / cotton tape in herringbone pattern; Suitable for post dyeing
Slider body out of die casted zinc, puller out of zinc or stamped brass/steel
Chain members from brass
Top stops and bottom stops from brass

HB M45 CE



Quality

Lateral strength	> 587 N
Lateral strength after reciprocation	> 529 N
Operating force	< 4 N
Reciprocation (durability)	> 500 cycles
Pull off strength of puller	> 196 N
Slider locking strength	> 60 N
Slider over top stops	> 98 N
Lateral strength of bottom stop	> 75 N
Slider against bottom stop	> 78 N

(The quality data represent minimum performance levels)

Main uses

Jeans
Trousers
Pockets of light leather apparel
Sweatshirts
Casual skirts

Fastness

		Change	Staining
Washing 60° C	(ISO 105-C06)	4	4
Water	(ISO 105-E01)	4	4
Dry-cleaning	(ISO 105-D01)	4	3...4
Light	(ISO 105-B02)	5	
Rubbing wet	(ISO 105-X12)		3... 4
Rubbing dry	(ISO 105-X12)		4

(These fastness grades represent minimum performance levels and, in practice, the majority of shades will exceed these levels)

Standards

EN 16732 – class B	CPSIA HR4040;
BS 3084:2006;	F963;
DIN 3416 – 19;	EN71;
Oeko-Tex 100 Class 1	QM System according BS EN ISO 9001:2008



HB M45 OE

Dimensions (approx.)

Chain width:	4,5 mm
Chain thickness:	2 mm
Single tape widths:	13 mm
Length of tape ends:	top: 20±2 mm

Features

Woven polyester / cotton tape in herringbone pattern;
Suitable for post dyeing

Slider body out of diecasted zinc,
puller out of zinc or stamped
brass/steel

Chain members from brass

Top stops and bottom stops from
brass



Quality

Lateral strength	> 587 N
Lateral strength after reciprocation	> 529 N
Operating force	< 4 N
Reciprocation (durability)	> 500 cycles
Pull off strength of puller	> 196 N
Slider locking strength	> 60 N
Slider over top stops	> 98 N
Lateral strength of open end	> 75 N
Box pull off strength	> 78 N

(The quality data represent minimum performance levels)

Main uses

Jackets
Light leather apparel
Sweatshirts

Fastness

		Change	Staining
Washing 60° C	(ISO 105-C06)	4	4
Water	(ISO 105-E01)	4	4
Dry-cleaning	(ISO 105-D01)	4	3...4
Light	(ISO 105-B02)	5	
Rubbing wet	(ISO 105-X12)		3... 4
Rubbing dry	(ISO 105-X12)		4

(These fastness grades represent minimum performance levels and, in practice, the majority of shades will exceed these levels)

Standards

EN 16732 – class B	CPSIA HR4040;
BS 3084:2006;	F963;
DIN 3416 – 19;	EN71;
Oeko-Tex 100 Class 1	QM System according BS EN ISO 9001:2008