



February 2017

Heat shrinkable tubing

Insulate, identify and protect your cables

Shrink-Kon®

ABB

Protect against moisture, corrosion and abrasion

ABB has you covered when it comes to insulation

- Easy to use
- Heat shrinkable
- Products with heavy, medium and thin walls
- End caps and breakouts



Shrink-Kon thin wall tubing

Manufactured from stabilised polyolefin, these insulators are used to insulate bare connectors and splices. They also provide a degree of strain relief and may be used to harness wires. Available in 1.2m lengths or spools.

Featured products:

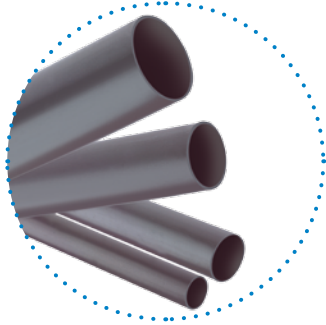
Halogen free non-lined 2:1 thin wall tubing
Extra clear heat shrink for use on power and data connections.



Shrink-Kon medium wall tubing

More flexible than heavy wall products, with excellent resistance to impact and abrasion.

- Seals and protects cable splices and terminations
- Adhesive lining provides complete environmental protection and insulation.



Shrink-Kon heavy wall tubing

When it comes to moisture proofing connections and terminations, ABB's heat shrinkable tubing, boots and end caps offer the greatest performance. Made of cross linked polyolefin, these heat shrinkable insulators can be used over a wide variety of materials.

ABB's heat shrinkable insulators are designed to be easy to use. They provide an appropriate level of insulation and abrasion protection.

HSTW series - thin wall

Resists common fluids and solvents



ABB's halogen free⁺ heat shrinkable tube is an environmentally friendly, flame retardant tube using a specially designed formulation of advanced polymers. The product demonstrates excellent flexibility, quick shrinking and stable performance over time making it ideal for a wide variety of applications in electronics and communications including insulating, harnessing, mechanical protection, identification, corrosion and rust proofing.

Characteristics:

- Halogen free⁺
- Operating temperature -55°C to 125°C
- Shrink ratio 2:1
- Shrink temperature starts at 70°C and shrinks totally at 120°C
- Flexible and flame retardant
- Meets RoHS standards
- Complies with UL224 VW-1, C-UL CSA C 22.2 OFT

HSTW series - thin wall flame retardant

Catalogue no. prefix	Size (mm)	As supplied (mm)		After recovery (mm)		Lengths (m)		
		ID	Average WT	Maximum ID	Average WT	Application range	Stick	Spool
HSTW1.50 *	1.5	2.0 +/- 0.3	0.18 +/- 0.05	0.85	0.32 +/- 0.10	0.95 - 1.4	1.2	200
HSTW2.50 *	2.5	3.0 +/- 0.3	0.18 +/- 0.05	1.30	0.32 +/- 0.10	1.35 - 2.3	1.2	200
HSTW3 *	3.0	3.5 +/- 0.4	0.18 +/- 0.05	1.50	0.40 +/- 0.10	1.6 - 2.7	1.2	200
HSTW5 *	5.0	5.5 +/- 0.4	0.25 +/- 0.05	2.50	0.55 +/- 0.10	2.6 - 4.5	1.2	100
HSTW7 *	7.0	7.5 +/- 0.4	0.28 +/- 0.05	3.50	0.55 +/- 0.10	3.7 - 6.3	1.2	100
HSTW10 *	10.0	10.5 +/- 0.5	0.30 +/- 0.08	5.00	0.60 +/- 0.10	5.2 - 9.0	1.2	100
HSTW13 *	13.0	13.5 +/- 0.5	0.35 +/- 0.10	6.50	0.65 +/- 0.10	6.7 - 12.0	1.2	100
HSTW20 *	20.0	22.0 +/- 0.7	0.40 +/- 0.15	10.00	0.80 +/- 0.15	10.4 - 19.0	1.2	100
HSTW25 *	25.0	26.0 +/- 0.7	0.55 +/- 0.15	12.50	0.90 +/- 0.15	12.8 - 24.0	1.2	50
HSTW40 *	40.0	41.5 +/- 0.7	0.55 +/- 0.15	20.00	1.00 +/- 0.15	21.0 - 39.0	1.2	50
HSTW50 *	50.0	51.0 +/- 0.7	0.55 +/- 0.15	25.00	1.00 +/- 0.15	26.0 - 49.0	1.2	25
HSTW80 *	80.0	≥ 80	0.70 +/- 0.15	41.00	1.46 +/- 0.20	45.0 - 75.0	1.2	25
HSTW100 *	100.0	≥ 100	0.70 +/- 0.20	51.00	1.46 +/- 0.20	55.0 - 95.0	1.2	25
HSTW120 *	120.0	≥ 120	0.70 +/- 0.20	61.00	1.56 +/- 0.20	65.0 - 115.0	1.2	15

* ABB's HSTW heatshrink is available in a range of colours and both 1.2m lengths or spools. For the complete catalogue number please use the system below.

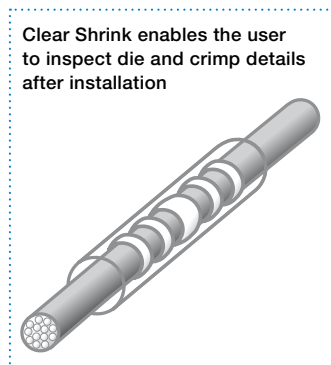
Catalogue no. prefix + colour code + length

eg: HSTW5R1.2 = 5mm red thin wall heatshrink 1.2 length

Colour codes

- Black = BK
- Red = R
- Yellow⁺ = Y
- Green = G
- Blue = BL
- White⁺ = W
- Clear⁺ = C
- Yellow / Green⁺ = YG

⁺Yellow, white and yellow/green colours are not halogen free but are RoHS compliant. Clear is halogen free but not flame retardant.



Clear Shrink enables the user to inspect die and crimp details after installation

Note: Due to ongoing product development, specification changes may result

HSTDW series - thin wall - adhesive lined

For general purpose commercial + industrial applications



ABB's environmentally friendly thin wall adhesive lined (dual wall) product is produced from flame retardant, cross linked polyolefin with an inner coating of hot melt adhesive. This product provides both electrical insulation and mechanical protection as well as a moisture proof environmental seal.

Characteristics:

- Operating temperature -45°C to 125°C
- Shrink ratio 3:1
- Shrink temperature starts at 70°C and shrinks totally at 120°C
- Inner layer glue melt temperature 70°C to 90°C
- Flexible and flame retardant
- Waterproof
- Meets RoHS standards
- Tested to UL224, IEC243, IEC93 and ASTM standards

HSTDW series - thin wall adhesive lined

Catalogue no. prefix	Size (mm)	As supplied (mm)		After recovery (mm)		Lengths (m)		
		ID	Average WT	Maximum ID	Average WT	Application range	Stick	Spool
HSTDW3BK *	3.2	≥ 3.2	0.30 +/- 0.08	≤ 1.0	0.95 +/- 0.08	0.35 +/- 0.08	1.2	200
HSTDW5BK *	4.8	≥ 4.8	0.46 +/- 0.08	≤ 1.6	1.10 +/- 0.08	0.40 +/- 0.08	1.2	200
HSTDW7BK *	6.4	≥ 6.4	0.50 +/- 0.08	≤ 2.2	1.20 +/- 0.08	0.45 +/- 0.08	1.2	200
HSTDW10BK1.2	9.5	≥ 9.5	0.55 +/- 0.08	≤ 3.2	1.45 +/- 0.08	0.50 +/- 0.08	1.2	—
HSTDW13BK1.2	12.7	≥ 12.7	0.68 +/- 0.08	≤ 4.2	1.70 +/- 0.08	0.50 +/- 0.08	1.2	—
HSTDW20BK1.2	19.1	≥ 19.1	0.76 +/- 0.10	≤ 6.3	2.00 +/- 0.10	0.55 +/- 0.10	1.2	—
HSTDW25BK1.2	25.4	≥ 25.4	0.78 +/- 0.10	≤ 8.5	2.10 +/- 0.10	0.55 +/- 0.10	1.2	—
HSTDW39BK1.2	39.0	≥ 39.0	0.85 +/- 0.10	≤ 13.5	2.40 +/- 0.10	0.60 +/- 0.10	1.2	—
HSTDW50BK1.2	50.0	≥ 50.0	0.95 +/- 0.10	≤ 17.0	2.70 +/- 0.10	0.70 +/- 0.10	1.2	—

* ABB's HSTDW heatshrink is available in black only and both 1.2m lengths or spools in 3mm, 5mm and 7mm diameter. For the complete catalogue number of 3mm, 5mm and 7mm product please use the system below

Catalogue no. prefix + length

eg: HSTDW3BK1.2 = 3.2mm black thin wall glue lined heatshrink 1.2 length

Note: Due to ongoing product development, specification changes may result

HSMDW series - medium wall - adhesive lined

More flexible than heavy wall product



ABB's environmentally friendly medium wall, adhesive lined tube is produced from co-extruded polyolefin with an inner coating of hot melt adhesive. This product provides both electrical insulation and mechanical protection as well as a moisture proof environmental seal.

Characteristics:

- Seals and protects cable joints and terminations
- High resistance to impact and abrasion
- Thermoplastic adhesive lining guarantees complete environmental protection and insulation
- Operating temperature -45°C to 125°C
- Shrink ratio nominal 3:1
- Shrink temperature starts at 70°C and shrinks totally at 125°C
- Inner layer glue melt temperature 70°C to 90°C
- Meets RoHS standards
- Tested to UL224, IEC243, IEC93 and ASTM standards

HSMDW series - medium wall adhesive lined

Catalogue no.	Size (mm)	As supplied (mm)	After recovery (mm)			Length (m)
		ID	Maximum ID	Average WT	Adhesive thickness	
HSMDW10/3	10.2	≥ 10.2	≤ 3.0	1.75+/- 0.25	0.35+/- 0.1	1
HSMDW19/6	19.1	≥ 19.1	≤ 5.6	2.45+/- 0.25	0.45+/- 0.1	1
HSMDW35/10	35.0	≥ 35.0	≤ 10.2	2.70+/- 0.25	0.50+/- 0.1	1
HSMDW43/13	43.2	≥ 43.2	≤ 12.7	2.70+/- 0.25	0.50+/- 0.1	1
HSMDW52/16	52.1	≥ 52.1	≤ 16.0	2.80+/- 0.30	0.50+/- 0.15	1
HSMDW95/29	95.0	≥ 95.0	≤ 29.0	3.70+/- 0.35	0.60+/- 0.20	1
HSMDW115/34	115.0	≥ 115.0	≤ 34.0	3.70+/- 0.35	0.60+/- 0.20	1

ABB's HSMDW heatshrink is available in black only

Note: Due to ongoing product development, specification changes may result

HSHDW series - heavy wall - adhesive lined

Maximum reliability for insulating + protecting cable joints + terminals



ABB's environmentally friendly heavy wall, adhesive lined tube is produced from cross linked polyolefin with an inner coating of hot melt adhesive. This product provides both electrical insulation and mechanical protection as well as a moisture proof environmental seal.

Characteristics :

- Seals and protects electrical and communication cable joints and terminations
- High impact, abrasion, corrosion and chemical resistance
- Thermoplastic adhesive lining guarantees complete environmental protection and insulation
- Operating temperature -45°C to 125°C
- Shrink ratio nominal 3:1
- Shrink temperature starts at 70°C and shrinks totally at 125°C
- Inner layer glue melt temperature 70°C to 90°C
- Meets RoHS standards
- Tested to UL224, IEC243, IEC93 and ASTM standards

HSHDW series - heavy wall adhesive lined

Catalogue no.	Size (mm)	As supplied (mm)	After recovery (mm)			Length (m)
		ID	Maximum ID	Average WT	Adhesive thickness	
HSHDW9/3	9.0	≥ 9.0	≤ 3.0	2.3+/- 0.25	0.35+/- 0.10	1
HSHDW20/6	20.0	≥ 20.0	≤ 6.0	2.9+/- 0.25	0.40+/- 0.10	1
HSHDW33/10	33.0	≥ 33.0	≤ 10.2	3.6+/- 0.25	0.40+/- 0.10	1
HSHDW43/12	43.2	≥ 43.2	≤ 12.0	5.0+/- 0.35	0.70+/- 0.20	1
HSHDW51/16	51.0	≥ 51.0	≤ 16.0	5.0+/- 0.35	0.70+/- 0.20	1
HSHDW70/21	70.0	≥ 70.0	≤ 21.0	5.0+/- 0.35	0.70+/- 0.20	1

ABB's HSHDW heatshrink is available in black only

Note: Due to ongoing product development, specification changes may result

HSC series

Heat shrinkable end caps



ABB's heat shrinkable end caps are produced from cross linked polyolefin with an inner coating of hot melt adhesive. End caps can provide electrical insulation, sealing, waterproofing, resistance to chemical corrosion and abrasion for electrical and communications cabling during installation and storage.

Characteristics:

- Operating Temperature -55°C to 100°C
- Shrink ratio 2:1
- Shrink temperature starts at 100°C and shrinks totally at 130°C
- Waterproof
- Tested to UL224, IEC93, IEC243, ISO62, ISO846 and ASTM standards

HSC series - heat shrinkable end caps

Catalogue no.	Main diameter (mm)		Full length (mm)	Wall thickness (mm)	
	As supplied	After recovery		As supplied	After recovery
HSC11	≥ 11.0	≤ 5.5	≥ 22.0	—	≥ 1.1
HSC16	≥ 16.0	≤ 7.5	≥ 75.0	1.3 +/- 0.1	≥ 2.2
HSC25	≥ 25.0	≤ 10.5	≥ 80.0	1.5 +/- 0.1	≥ 2.3
HSC32	≥ 32.0	≤ 16.5	≥ 90.0	1.5 +/- 0.1	≥ 2.5
HSC50	≥ 50.0	≤ 26.0	≥ 115.0	2.0 +/- 0.1	≥ 3.4
HSC70	≥ 70.0	≤ 37.0	≥ 120.0	1.8 +/- 0.1	≥ 2.5
HSC100	≥ 100.0	≤ 46.0	≥ 140.0	1.8 +/- 0.1	≥ 3.5
HSC120	≥ 120.0	≤ 57.0	≥ 155.0	1.8 +/- 0.1	≥ 3.5

ABB's HSC end caps are available in black only

Note: Due to ongoing product development, specification changes may result

HSB series

Heat shrinkable breakouts



ABB's heat shrinkable breakouts are produced from cross linked polyolefin with an inner coating of hot melt adhesive. Breakouts are suitable for termination of PVC and XLPE cable providing electrical insulation, sealing, waterproofing and resistance to chemical corrosion and abrasion.

Characteristics:

- Operating temperature -55°C to 100°C
- Voltage rating up to 35kV
- Shrink ratio 2:1
- Shrink temperature starts at 100°C and shrinks totally at 130°C
- Waterproof
- Tested to IEC, ISO and ASTM standards

HSC series - heat shrinkable breakouts

Catalogue no.	Breakout main diameter (mm)		Finger diameter (mm)		Full length (mm)	Finger length (mm)
	As supplied	After recovery	As supplied	After recovery		
2 core breakout						
HSB25-2	≥ 25.0	≤ 11.0	≥ 10.0	≤ 5.0	135.0 +/- 5.0	55.0 +/- 5.0
HSB30-2	≥ 30.0	≤ 13.0	≥ 16.0	≤ 7.0	145.0 +/- 5.0	60.0 +/- 5.0
HSB40-2	≥ 40.0	≤ 15.0	≥ 20.0	≤ 9.0	145.0 +/- 5.0	65.0 +/- 5.0
HSB50-2	≥ 50.0	≤ 17.0	≥ 25.0	≤ 11.0	140.0 +/- 5.0	60.0 +/- 5.0
3 core breakout						
HSB27-3	≥ 27.0	≤ 17.0	≥ 12.0	≤ 5.0	130.0 +/- 5.0	50.0 +/- 5.0
HSB50-3	≥ 50.0	≤ 22.0	≥ 19.0	≤ 7.0	165.0 +/- 5.0	60.0 +/- 5.0
HSB60-3	≥ 60.0	≤ 28.0	≥ 24.0	≤ 8.0	170.0 +/- 5.0	65.0 +/- 5.0
HSB70-3	≥ 70.0	≤ 36.0	≥ 29.0	≤ 13.0	215.0 +/- 5.0	80.0 +/- 5.0
HSB90-3	≥ 90.0	≤ 45.0	≥ 40.0	≤ 15.0	220.0 +/- 5.0	90.0 +/- 5.0
HSB105-3	≥ 105.0	≤ 53.0	≥ 44.0	≤ 18.0	225.0 +/- 5.0	90.0 +/- 5.0
HSB130-3	≥ 130.0	≤ 63.0	≥ 61.0	≤ 24.0	230.0 +/- 5.0	85.0 +/- 5.0
4 core breakout						
HSB40-4	≥ 40.0	≤ 18.0	≥ 10.0	≤ 5.0	130.0 +/- 5.0	55.0 +/- 5.0
HSB50-4	≥ 50.0	≤ 24.0	≥ 15.0	≤ 7.0	150.0 +/- 5.0	55.0 +/- 5.0
HSB70-4	≥ 70.0	≤ 32.0	≥ 24.0	≤ 9.0	175.0 +/- 5.0	75.0 +/- 5.0
HSB80-4	≥ 80.0	≤ 44.0	≥ 30.0	≤ 12.0	195.0 +/- 5.0	75.0 +/- 5.0
HSB95-4	≥ 95.0	≤ 44.0	≥ 35.0	≤ 12.0	200.0 +/- 5.0	80.0 +/- 5.0
5 core breakout						
HSB40-5	≥ 40.0	≤ 21.0	≥ 10.0	≤ 5.0	150.0 +/- 5.0	55.0 +/- 5.0
HSB55-5	≥ 55.0	≤ 29.0	≥ 15.0	≤ 7.0	170.0 +/- 5.0	65.0 +/- 5.0
HSB70-5	≥ 70.0	≤ 38.0	≥ 24.0	≤ 9.0	175.0 +/- 5.0	65.0 +/- 5.0
HSB90-5	≥ 90.0	≤ 49.0	≥ 30.0	≤ 12.0	190.0 +/- 5.0	80.0 +/- 5.0

ABB's HSB breakouts are available in black only

Note: Due to ongoing product development, specification changes may result

HSZT series

Heat shrinkable repair sleeves



ABB's repair sleeves are manufactured from cross-linked polyolefin and use a stainless steel clip and hot melt adhesive primarily to ensure excellent sealing, insulating and waterproofing of damaged cables or cable joints. The characteristics of HSZT repair sleeves also make them ideal to provide corrosion protection for steel structures such as pipework.

Characteristics:

- Seals and protects electrical and communications cable where the insulation has been damaged
- High impact, abrasion, corrosion and chemical resistance
- Hot melt adhesive and stainless steel clip ensure a complete environmental seal
- Operating temperature -45°C to 105°C
- Shrink ratio nominal 3:1
- Shrink temperature starts at 100°C and shrinks totally at 130°C
- UV resistant
- Meets RoHS standard
- Tested to IEC243, ISO62 and ASTM standards

HSZT series - heat shrinkable repair sleeves

Catalogue no.	As supplied (mm)	After recovery (mm)		Length (mm)
	Minimum ID	Maximum ID	Average WT	
HSZT30/12	30	12	1.8	450
HSZT50/18	50	18	2.5	450
HSZT60/22	60	22	2.5	900
HSZT85/30	85	30	2.9	900
HSZT120/40	120	40	3.0	900
HSZT150/50	150	50	3.5	900

ABB's HSZT tube is available in black only

Note: Due to ongoing product development, specification changes may result

Shrink-Kon Portable heatshrink torch

Separate fuel and air flow controls enable precise adjustment of flame and temperature up to 1350°C.

The Shrink-Kon portable heatshrink torch offers a safe, simple, and effective solution to virtually any application requiring a controlled flame. The unit offers a maximum output of 1350°C – hot enough even for thick wall heatshrink tubing – yet operates on standard, widely available butane, yielding up to 220 minutes per fueling.

Individual controls for fuel and air flow enable easy adjustment of temperature and precise flame control. It's perfect for use on thin wall heatshrink sleeving, as well as heatshrink terminals and labels. It's also ideal for brazing and soldering. To start the unit, simply twist the start button to the on position and push. The piezo ignition automatically lights the torch.

For safety, a kill-switch button turns the flame off instantly, and a safety lock prevents accidental ignition. The ergonomic rubber grip and rugged, lightweight (only 280g filled) construction prevent operator fatigue or discomfort. The Shrink-Kon portable heatshrink torch includes a sturdy, removable base for hands free operation.



Specifications:

- Dimensions (without base): 9.9cm L x 3.6cm W x 13.7cm H
- Weight (when filled): 280g
- Fuel tank capacity: 0.06L
- Operating time (per full fuel tank): up to 220 minutes

Safe:

- Safety lock prevents accidental ignition
- Kill-switch button allows instant shut-off

Simple:

- Runs on widely available standard butane fuel
- Automatic piezo ignition offers quick, easy lighting
- Ergonomic rubber grip and light weight to ensure user comfort
- Sturdy, removable base for handsfree use

Effective:

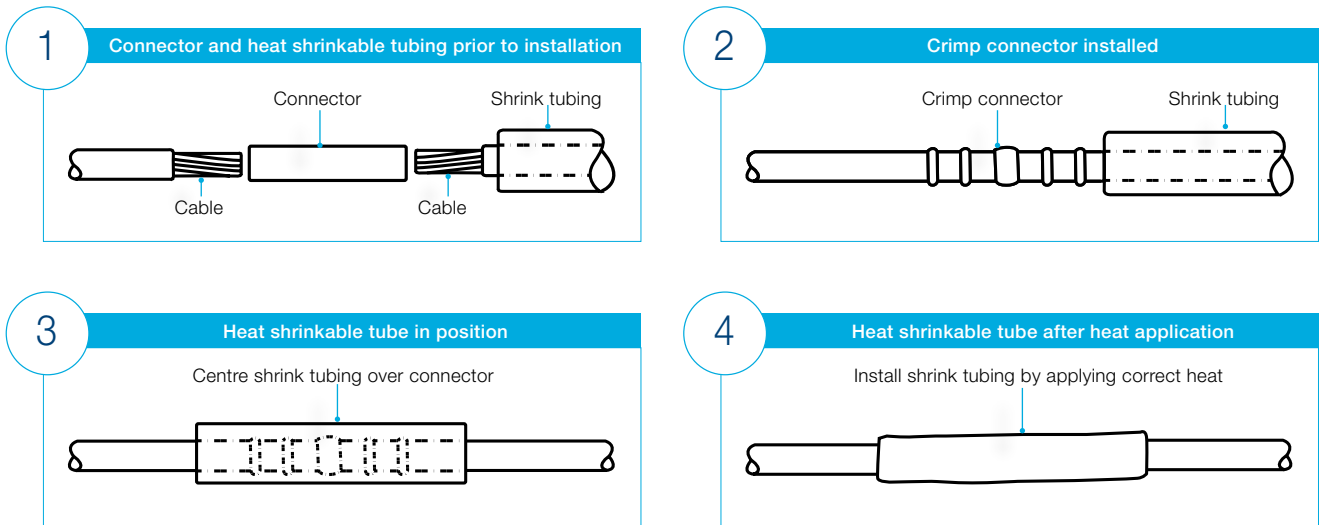
- 1350°C output capacity satisfies virtually any heatshrink, brazing, or soldering requirement
- Dual fuel and air-flow controls enable separate adjustment of temperature and flame precision
- Brass and steel construction provides durability

Portable heatshrink torch

Catalogue no.	Description
WT-PTORCH	Shrink-Kon portable heatshrink torch*

* Please note that for safety reasons, the WT-PTORCH ships without fuel. The unit operates on standard butane, purchased separately.

Installation guidelines and cross reference



Installation

No special installation skills required

1. Remove any oil, grease, water, dirt etc by wiping the cable ends and connector/link. Remove any sharp edges or burrs.
2. Centre tubing over the splice connectors/links
3. If using a gas burner, use the cooler, soft flame. Do not hold the torch still in one position or concentrate the hot inner flame of the torch on the tubing; this may cause scorching.
4. Begin heating the tubing in the centre. Recover the central portion of the tubing first by heating around the circumference of the splice. Keep the heat source moving around the circumference of the insulator to ensure uniform shrinkage.
5. Continue heating around the tubing and out toward one end. Move the torch around the tubing until one end is completely recovered.
6. Repeat the above procedure on the opposite end of the splice, again working from the centre outward and around the tubing.
7. Installation is complete when the tubing conforms to the link and if present, adhesive flow is apparent at both ends.

Cross reference

	ABB	Cabac	Repelec
Series	HSTW	XLP/XLPHF	RAYHS
	HSTDW	XDW	RAYATUM
	HSMDW	SMDW	RAYMWTM
	HSHDW	STDW	RAYWCMSM
	HSC	SRE	RAY102
	HSB	KEV	RAY302/402/502

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