

## Heat Setting Techniques for Hotfix Stones

### Point Heat Setting Devices



Point heat-setting devices are modern industrial appliances that enable simultaneous point heat and pressure effect exerted onto a single stone. The heating element heats the low-melting adhesive layer from below through the fabric. An automatic feeder locks the stone in position and the device exerts pressure onto the stone from above, i.e. from the stone's table in the direction of the heating element positioned under the fabric.

The typical feature of this device type is a brief but intensive heat effect exerted onto a small area, hence the name "point devices". This has the advantage of being gentle on textile materials, with very little likelihood of causing them visible damage.

### Point Heat Setting Devices – loose stones

Temperature (°C/°F)	Time (sec.)								
	120 /248	130 /266	140 /284	150 /302	160 /320	170 /338	180 /356	200 /392	220 /428
<b>Synthetics</b>	10	9	8	7	6	5	4	3.5	3
<b>Silk</b>	14	13	11	9	7	5	4	3.5	3
<b>Cotton</b>	15	13	11	9	7	5	4	3.5	3
<b>Linen</b>	15	13	11	9	7	5	4	3.5	3
<b>Viscose</b>	18	15	12	9	7	5	4	3.5	3
<b>Wool</b>	25	22	19	16	13	10	8	7	6
<b>Denim</b>	25	23	21	18	15	12	10	9	8
<b>Lycra</b>	25	21	17	13	9	5	4	3.5	3

Sizes ss 4 – 48 basic setting

It is recommended to set the device on low pressure when applying the stones at temperatures of 180°C and higher.

### Heat Press and Iron Motifs (transfers)

These devices, equipped with an upper planar heating element, are primarily intended for the planar application of transfer motifs. The stones forming the decorative motif are temporarily stuck to a plastic transfer sheet and can be applied to various carrier materials:



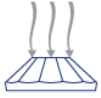
1. The fabric with the motif temporarily stuck to it is turned inside out, with the fusible adhesive layer facing upwards. Thus, the heat emitted by the heating element penetrates the fabric first, simultaneously heating and fusing the adhesive layer on the stones' back.

Compared with point heat-setting devices, planar devices require a lower temperature and a longer application time.

### Heat Press and Iron – motifs (transfers)

Temperature (°C/°F)	Time (sec.)						
	120 /248	130 /266	140 /284	150 /302	160 /320	170 /338	180 /356
<b>Synthetics</b>	10	9	8	7	6	5	4
<b>Silk</b>	14	13	11	9	7	5	4
<b>Cotton</b>	15	13	11	9	7	5	4
<b>Linen</b>	15	13	11	9	7	5	4
<b>Viscose</b>	18	15	12	9	7	5	4
<b>Wool</b>	25	22	19	16	13	10	8
<b>Denim</b>	25	23	21	18	15	12	10
<b>Lycra</b>	25	21	17	13	9	5	4

Sizes ss 4 – 48 basic setting



- The created motif is temporarily stuck, by means of the plastic transfer sheet, to the right side of the fabric. The heat emitted by the heating element placed in the upper part of the device, penetrates the stones, affecting their fusible adhesive layer on the stones' back from above.

Thus, the adhesive is heated and fused through the stones. The advantage of this technique is lower probability of damaging the fabric. On the other hand, its only disadvantage is a longer application time required.

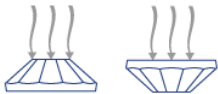
### Heat Press and Iron – motifs (transfers)

Material Temperature (°C/°F)	Time (s)		
	<b>160</b> /320	<b>170</b> /338	<b>180</b> /356
<b>Synthetics</b>	30	25	20
<b>Silk</b>	30	25	20
<b>Cotton</b>	30	25	20
<b>Linen</b>	30	25	20
<b>Viscose</b>	30	25	20
<b>Wool</b>	30	25	20
<b>Denim</b>	30	25	20
<b>Lycra</b>	30	25	20

The figures are given for stones size ss 10.  
While applying larger stones, it is advisable to use longer times.  
The application time depends on the largest stone in the motif.

### Hand heat-setting tools

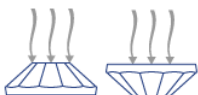
#### Iron



An electric iron is an ideal tool for applying hot-fix stones in home conditions and a useful aid in creating products on a small scale or to test out new designs. By using an iron, it is possible to apply various motifs as well as individual stones.

**Warning:** To avoid any undesirable direct steam or water contact with the fabric or stones when using a steam iron, be sure to switch off the steam function first.

#### Applicator



Hand soldering irons are not equipped with temperature control, however, they do make ideal tools for designers and hobbyists. Unless otherwise stated, the producer supplies the tool with a preset temperature ranging from 160°C to 180°C (320°F - 356°F).

### Applicator and Iron – loose stones

Material Temperature (°C/°F)	Time (s)		
	<b>160</b> /320	<b>170</b> /338	<b>180</b> /356
<b>Synthetic fibres</b>	18	15	12
<b>Silk</b>	18	15	12
<b>Cotton</b>	18	15	12
<b>Linen</b>	18	15	12
<b>Viscose</b>	18	15	12
<b>Wool</b>	18	15	12
<b>Denim</b>	18	15	12
<b>Lycra</b>	18	15	12

The figures are given for stones size ss 10

**Examples of heat-setting devices**



*Point heat-setting device*



*Planar heat-setting device*



*Tip applicator for hand application*

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