

CLAIMS:

1. A portable textile treatment device (1, 1a, 1b, 1c, 1d, 1e, 1g, 1h) comprising:
- a heatable soleplate (4) intended to be in contact with a textile (TXT) for treating the textile, said heatable soleplate (4) comprising a soleplate opening (H),
 - a module (MD) comprising an image sensor (5, 5b) for taking an image of the textile to be
 - 5 treated through said soleplate opening (H), and
 - a control unit (8) configured for:
 - a) executing an algorithm stored in said portable textile treatment device, using the taken image as an input of said algorithm, to obtain a classification of the textile, and
 - 10 b) controlling, based on said classification, at least one operating parameter of the portable textile treatment device,
- wherein:
- the module (MD) and the control unit (8) are integrated within the portable textile treatment device,
 - 15 - the image sensor comprises an active surface sensitive to light which is oriented with respect to the surface of the heatable soleplate (4), with an absolute value of an orientation angle (α_5) being in the range from 15 to 70 degrees,
 - the portable textile treatment device further comprises thermal insulation means arranged in-between said heatable soleplate (4) and said module (MD) for insulating said module
 - 20 (MD) from heat dissipated by said heatable soleplate (4).
2. The portable textile treatment device according to claim 1, wherein said thermal insulation means comprise:
- a first plastic cover (C1) extending over said heatable soleplate (4), said first plastic cover
 - 25 (C1) comprising a first opening (O1), said module (MD) extending into said first opening (O1),
 - a first gasket (G1) arranged between said module (MD) and a first periphery (PE1) of said first opening (O1).

3. The portable textile treatment device according to claim 2, wherein said thermal insulation means further comprise:

- a first air gap (AG1) is arranged between said heatable soleplate (4) and said first plastic cover (C1).

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4. The portable textile treatment device according to claim 3, further comprising an opening (OP) for ventilating air in said first air gap (AG1) outside the portable textile treatment device.

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5. The portable textile treatment device according to any one of claims 2 to 4, wherein said thermal insulation means further comprise:

- a second plastic cover (C2) extending over said first plastic cover (C1), said second plastic cover (C2) comprising a second opening (O2), said module (MD) extending into said second opening (O2).

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6. The portable textile treatment device according to claim 5, wherein said thermal insulation means further comprise:

- a second gasket (G2) arranged between said module (MD) and a second periphery (PE2) of said second opening (O2).

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7. The portable textile treatment device according to claim 5 or 6, wherein said thermal insulation means further comprise:

- a second air gap (AG2) being arranged between said first plastic cover (C1) and said second plastic cover (C2).

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8. The portable textile treatment device according to any one of claims 2 to 7, wherein said module (MD) comprises a lower portion (LP) extending between said soleplate opening (H) and said first opening (O1), said thermal insulation means further comprising a sheath (SS) arranged around said lower portion (LP), for creating an air layer between said lower portion (LP) and said sheath (SS).

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9. The portable textile treatment device according to claim 8 as according to any one of claims 5 to 7, wherein said lower portion (LP) further extends between said first

opening (O1) and said second opening (O2), said sheath (SS) further extending around said lower portion (LP) between said first opening (O1) and said second opening (O2).

10. The portable textile treatment device according to claim 1, wherein said
- 5 thermal insulation means further comprise:
- a first plastic cover (C1) extending over said heatable soleplate (4), said first plastic cover (C1) comprising a first opening (O1), said module (MD) extending into said first opening (O1),
 - a second plastic cover (C2) extending over said first plastic cover (C1), said second plastic
 - 10 cover (C2) comprising a second opening (O2), said module (MD) extending into said second opening (O2),
 - a gasket (G) arranged around said module (MD), said gasket (G) being sandwiched between said first plastic cover (C1) and said second plastic cover (C2),
 - a sheath (SS) arranged around a lower portion (LP) of said module (MD), said lower
 - 15 portion (LP) extending between said soleplate opening (H) and said first opening (O1), for creating an air layer between said lower portion (LP) and said sheath (SS).

11. The portable textile treatment device according to any one of claims 2 to 9:
- wherein said module (MD) comprises a middle portion (MP) and an upper portion (UP)
 - 20 both extending above said first plastic cover (C1),
 - wherein said thermal insulation means further comprise a wall (WW) of said first plastic cover (C1) extending upwards along a periphery (PC1) of said first plastic cover (C1),
 - further comprising a housing (HH) for enclosing said middle portion (MP) and said upper portion (UP), said housing (HH) being assembled onto said wall (WW).

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12. The portable textile treatment device according to any one of the preceding claims, comprising mounting means (L1, SM1, SC1) for mounting said module (MD) in such a way that said module (MD) is not in direct contact with said heatable soleplate (4).

- 30 13. The portable textile treatment device according to any one of the preceding claims, further comprising a heating element (12) extending in said heatable soleplate (4) up to a front position (FP) of said heatable soleplate (4), said module (MD) being arranged in front of said front position (FP) at a distance (dd) from said front position (FP) being equal or greater than 20 mm.

14. The portable textile treatment device according to any one of the preceding claims, comprising a heat sink (HS) in thermal exchange with said module (MD), for dissipating outside the portable textile treatment device, heat accumulated in said module (MD).

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15. The portable textile treatment device according to claim 14 as according to claim 11, wherein:

- said middle portion (MP) is in thermal exchange with said heat sink (HS) via a first thermal path (TP1), and

10 - said upper portion (UP), into which said image sensor is arranged, is in thermal exchange with said heat sink (HS) via a second thermal path (TP2), said second thermal path (TP2) being separate from said first thermal path (TP1).