CLAIMS

1. A chain link (1) of an energy guiding chain including at least one plastic injection moulded part (2A, 2B; 3A, 3B; 4) , in particular a side part (2A, 2B; 3A, 3B), wherein the injection moulded part (2A, 2B; 3A, 3B; 4) is produced in the injection moulding method in the form of a one-piece plastic body from a plastic with a colouration that remains the same throughout, which has a first side, in particular an outside (6) of the side part (2A, 2B; 3A, 3B), having a first surface (13), and a second side, in particular an inside (5) of the side part (2A, 2B; 3A, 3B), and wherein there is provided at least one marking visible at the first side, characterised in that

the at least one marking includes a data code marking (10; 20) with a 2D code, namely a QR code, which encodes data and

the data code marking with the QR code is introduced in the injection moulding method from a visually black plastic into the plastic body and is provided in machine-readable manner at the first side (6).

2. A chain link according to claim 1 characterised in that the 2D code (10; 20) is a QR code, in particular in accordance with ISO/IEC 18004.

3. A chain link according to claim 1 characterised in that the 2D code is shaped or formed in one piece, in particular in material-unitary relationship, with the plastic body.

4. A chain link according to one of claims 1 to 3 characterised in that the 2D code (10;20) for encoding includes first symbol elements (11) and second symbol elements (12), wherein the first symbol elements have a different surface nature from the second symbol elements.

5. A chain link according to claim 4 characterised in that the first symbol elements (11) and the first surface (13) of the injection moulded

part have the same surface nature and/or the second symbol elements (12) have a different surface profile from the first surface (13).

6. A chain link according to claim 4 or claim 5 characterised in that the first symbol elements (11) are of a lesser roughness depth than the second symbol elements (12).

7. A chain link according to one of claims 4 to 6 characterised in that the first symbol elements (11) have an arithmetic mean roughness value Ra in the region of 0.5 to 3.5 μm, preferably in the region of 0.75 to 2.75 μm, and the second symbol elements (12) have an arithmetic mean roughness value Ra, roughness depth, in the region of 5 to 12 μm, preferably in the region of 6.50 to 10.50 μm.

8. A chain link according to one of claims 4 to 7 characterised in that the first symbol elements (11) lie in level-plane relationship with the first surface (13) in a region adjoining the data code marking (10; 20).

9. A chain link according to one of claims 4 to 8 characterised in that the second symbol elements (12) are formed by regions projecting with respect to the surface (13) of the first side of the injection moulded part, wherein a difference in height between the first symbol elements (11) and the second symbol elements (12) is preferably less than 0.5 mm.

10. A chain link according to one of claims 4 to 8 characterised in that the data code marking (10; 20) is provided in a region (7) of the first side, that is recessed with respect to the first surface (13), and/or the second symbol element (12) is formed by regions recessed with respect to the surface (13) of the first side of the injection moulded part.

11. A chain link according to one of claims 4 to 10 characterised in that the second symbol elements (12) produce greater light scatter than the first symbol elements (11).

12. A chain link according to one of claims 4 to 11, in particular according to claim 11, characterised in that the second symbol elements (12) produce substantially isotropic light scatter and/or have an aperiodic surface profile.

13. A chain link according to one of claims 1 to 12 characterised in that the data code marking (10; 20) with the 2D code, in particular including the visible surface of the first and second symbol elements (11, 12), is produced in one piece from the same plastic as the plastic body (2A, 2B; 3A, 3B; 4).

14. A chain link according to one of claims 1 to 13 characterised in that the data code marking (10; 20) with the 2D code is produced in off-tool fashion, in particular as a direct marking, with the injection moulded part (2A, 2B; 3A, 3B; 4) in the injection moulding tool and is machine-readable without re-working.

15. A chain link according to one of claims 1 to 14 characterised in that the data code marking (10; 20) is a permanent marking and the data encoded by the 2D code include at least one manufacturer-related URL or PURL identifier.

16. A chain link according to one of claims 1 to 15, in particular according to claim 15, characterised in that the data encoded by the 2D code include encrypted and/or injection moulded part-specific data contents.

17. A chain link according to one of claims 1 to 16 characterised in that the at least marking further includes a user-readable marking at the first side, in particular a user-readable time marking which is introduced into the plastic body in an injection moulding method by means of a casting clock marking punch (8).

18. A chain link (1) of an energy guiding chain according to at least one of claims 1 to 17, wherein the at least one injection moulded part (2A, 2B; 3A, 3B; 4) is a side part (2A, 2B; 3A, 3B) with a first data code marking (10; 20) with a QR code and at least one further injection moulded part (2A, 2B; 3A, 3B; 4) is an opening bar (14) with a second data code marking (10; 20) with a QR code.

19. A chain link (1) according to one of claims 1 to 18 wherein the at least one injection moulded part (2A, 2B; 3A, 3B; 4) is produced from a fibre-reinforced injection-mouldable plastic, in particular from a plastic with a predominant proportion by weight of polyamide with reinforcing fibres

20. Use of a chain link according to one of claims 1 to 19 for assembly or maintenance of an energy guiding chain, wherein the user is guided by data detection of the 2D code with a terminal device at the plastic injection moulded part to a manufacturer-related website which is associated with said plastic injection moulded part and which has product information and/or an ordering function.

21. Use of a chain link according to one of claims 1 to 19 for the detection of product counterfeiting.