

# ISO 14920:2023-08 (E)

## Thermal spraying - Spraying and fusing of self-fluxing alloys

---

<b>Contents</b>		<b>Page</b>
Foreword		iv
<b>1</b>	<b>Scope</b>	<b>1</b>
<b>2</b>	<b>Normative references</b>	<b>1</b>
<b>3</b>	<b>Terms and definitions</b>	<b>1</b>
<b>4</b>	<b>Influence on the substrate and design</b>	<b>1</b>
4.1	Substrate	1
4.2	Design	2
<b>5</b>	<b>Spray material of the self-fluxing alloy</b>	<b>2</b>
5.1	Selection	2
5.2	Composition	2
<b>6</b>	<b>Preparation of the component</b>	<b>2</b>
6.1	General	2
6.1.1	Surface cleanliness	2
6.1.2	Removal of prior surface treatments	2
6.1.3	Pre-machining requirements	3
6.1.4	Surface preparation requirements	3
6.2	Methods of surface preparation	3
6.2.1	Surface preparation requirements	3
6.2.2	Surface preparation inspection	3
6.2.3	General masking of surface preparation	3
6.2.4	Plug masking for surface preparation	3
6.3	Cleanliness	3
<b>7</b>	<b>Spray and fusion process</b>	<b>4</b>
7.1	Spraying with simultaneous fusion	4
7.1.1	Procedure	4
7.1.2	Particle size and particle size range of the powder particles	4
7.1.3	Coating thickness	4
7.2	Spraying with subsequent fusion	4
7.2.1	Procedure	4
7.2.2	Particle size and particle size range of the powder particles	4
7.2.3	Coating thickness	5
7.3	Spraying technique — Procedure	5
7.3.1	General	5
7.3.2	Preheating	5
7.3.3	Spraying	5
7.3.4	Fusing the deposit	5
7.3.5	Cooling	6
<b>8</b>	<b>Final machining</b>	<b>6</b>
<b>9</b>	<b>Hardness testing</b>	<b>6</b>
9.1	General	6
9.2	Standard hardness test	6
<b>Annex A (informative)</b>	<b>Reference values for the expected hardness of the fused coating</b>	<b>8</b>
<b>Bibliography</b>		<b>9</b>