

ISO 4289:2023-02 (E)

High velocity oxygen fuel (HVOF) cermet coatings for metallurgical roll components - Guidance with requirements

| Contents | | Page |
|--|--|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 Scope | | 1 |
| 2 Normative references | | 1 |
| 3 Terms and definitions | | 1 |
| 4 Recommended HVOF cermet coating materials for various metallurgical rollers | | 2 |
| 5 Preparation of HVOF cermet coatings for various metallurgical rollers | | 2 |
| 5.1 Pre-treatment of various metallurgical components..... | | 2 |
| 5.2 HVOF spraying..... | | 3 |
| 5.3 Post-process of HVOF sprayed coatings..... | | 3 |
| 6 Coating quality and performance evaluation | | 3 |
| 6.1 General..... | | 3 |
| 6.2 Coating quality..... | | 3 |
| 6.3 Performance evaluation of coatings..... | | 4 |
| 6.3.1 Thickness..... | | 4 |
| 6.3.2 Surface roughness..... | | 5 |
| 6.3.3 Bonding strength..... | | 5 |
| 6.3.4 Porosity..... | | 5 |
| 6.3.5 Microhardness..... | | 5 |
| 6.3.6 Friction and wear test..... | | 6 |
| 6.4 Sealing treatment of coatings..... | | 9 |
| Bibliography | | 11 |