

Direct-Softened Alloy Steel Rod for Cold Forging Uses*

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1 Introduction

Conventional as-rolled alloy steel rods for cold forging have a hard structure containing a great deal of bainite

process of steelmaking, billet rolling, and rod rolling, these rods for cold forging applications are subjected to strict quality control.

Annealing is required to lower the hardness of this as-rolled product and increase its ductility for cold drawing.

With the aim of lowering production costs, attempts have been made in recent years to obtain properties equivalent to those annealed material after hot rolling.

3 Product Type and Properties

3.1 Product Type

Item	Proposed Plan
1. Project Description	[REDACTED]
2. Objectives	[REDACTED]
3. Methodology	[REDACTED]
4. Results	[REDACTED]
5. Conclusions	[REDACTED]
6. Recommendations	[REDACTED]
7. References	[REDACTED]
8. Appendix	[REDACTED]
9. Bibliography	[REDACTED]
10. Glossary	[REDACTED]
11. Acronyms	[REDACTED]
12. Abbreviations	[REDACTED]
13. Symbols	[REDACTED]
14. Units	[REDACTED]
15. Figures	[REDACTED]
16. Tables	[REDACTED]
17. Charts	[REDACTED]
18. Diagrams	[REDACTED]
19. Maps	[REDACTED]
20. Photographs	[REDACTED]
21. Videos	[REDACTED]
22. Audio	[REDACTED]
23. Other	[REDACTED]

