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JAPANESE INDUSTRIAL STANDARD

Glossary of terms used in amorphous metals

JIS H 7004—1990

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H 7004-1990

1. Scope

This Japanese Industrial Standard specifies the terms and their definitions relating to amorphous metals used for mining and industry.

2. Classification

The terms shall be classified as follows:

- (1) Materials
- (2) Method of manufacture
- (3) Phenomenon, structure and physical properties
- (4) Methods for testing and evaluation

3. Terms and Definitions

The terms and their definitions shall be as listed below.

Further, the equivalent English terms are given for informative reference.

- Remarks 1. In the case two or more terms are aligned within one column, they shall be used in this sequence.
2. The terms and definitions in parentheses in the table below may be omitted.

(1) Material

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	
1001	アモルファス金属	AMORUFASU KINZOKU	Metals which are noncrystalline, having irregular alignment of atoms which spreads a wide range more than several atoms: Sometimes, it is referred to as "HISHO-SHITU KINZOKU" in Japanese.	amorphous metals	
1002	アモルファス金属薄膜	AMORUFASU KINZOKU USUOBI	An amorphous metal with a length much greater than the width, having a thickness of several hundreds micrometers or less.	amorphous metal ribbon	
1003	アモルファス金属薄膜	AMORUFASU KINZOKU USUMAKU	A film of amorphous metal formed on a substrate by means of vapor quenching method and the like.	amorphous metal film	
1004	アモルファス金属繊維	AMORUFASU KINZOKU SENTI	A fine amorphous metal with a length much greater than the dimensions of cross-section, having several hundreds micrometers or less in cross-sectional dimensions.	amorphous metal fiber	
1005	アモルファス金属粉末	AMORUFASU KINZOKU HUNMATU	Aggregates of amorphous metallic particles of which the maximum size is 1000 μm .	amorphous metal powder	

(2) Method of Manufacture

No.	Term (Japanese character)	Reading	Definition	Informative reference	
				English equivalent	
2001	急速凝固法	KYUUSOKU GYOOKO HOO	A remarkably fast solidification than usual case in growth velocity of solid phase: <u>Informative reference</u> Liquid quenching method and static undercooling method are involved.	rapid solidification processing	
2002	静的過冷法	SEITEKI KAREIHOO	A solidification method of which liquid metal is cooled slowly to make it undercooled state that is below a solidification temperature.	static undercooling method	
2003	液体急冷法, 急冷凝固法	EKITAI KYUUREIHOO, KYUREI GYŌKOHOO	A representative manufacturing method of amorphous metal, which is rapid cooling from liquid state for solidification: <u>Informative reference</u> Single-roll process, twin-roll process, etc. are involved.	liquid quenching method	
2004	単ロール法	TAN-RŌRU-HOO	Obtaining thin strip by supplying molten metal through a nozzle onto the surface of single rotating roll to solidificate.	single-roll process, single-roll technique	
2005	双ロール法	SOO-RŌRU-HOO	Obtaining thin strip by supplying molten metal through a nozzle inbetween two rotating rolls to solidificate.	twin-roll process, twin-roll technique	