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**Methods of radiographic
examination for welded joints
in aluminium**

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee, as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Light Metal Welding and Construction Association (JLWA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14. Consequently **JIS Z 3105 : 1993** is revised, and further, **JIS Z 3108 : 1986** and **JIS Z 3109 : 1988** are withdrawn and integrated into this Standard.

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In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

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Methods of radiographic examination for welded joints in aluminium

1 Scope This Japanese Industrial Standard specifies the methods of radiographic examination for welded joints of aluminium and aluminium alloys (hereafter referred to as “aluminium”), where the X-ray or γ -ray (hereafter referred to as “radiation”) is carried out by the direct photographing method with the industrial X-ray film.

2 Normative references The following standards contain provisions which, through reference in this Standard, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS H 4000 *Aluminium and aluminium alloy sheets and plates, strips and coiled sheets*

JIS K 7627 *Non-destructive testing—Industrial radiographic films—Part 1 : Classification of film systems for industrial radiography*

JIS Z 2300 *Terms and definitions of nondestructive testing*

JIS Z 2306 *Radiographic image quality indicators for non-destructive testing*

JIS Z 3861 *Standard qualification procedure for radiographic testing technique of welds*

JIS Z 4560 *Industrial γ -ray apparatus for radiography*

JIS Z 4561 *Viewing illuminators for industrial radiograph*

JIS Z 4606 *Industrial X-ray apparatus for radiographic testing*

3 Definitions For the purposes of this Standard, the definitions given in **JIS Z 2300** and the following definitions apply.

- a) **thickness of base metal** Nominal thickness of aluminium plate to be used. In the case where the thickness of the base metal is different for fusion welded butt joint, the small thickness shall be used.
- b) **test part** Parts where the weld metal and the heat affected zone for test target.

4 Type of image quality of radiographs The image quality of the radiograph is classified into 6 classes such as Class A, Class B, Class P0, Class P1, Class P2 and Class F. These image qualities shall be applied according to table 1 for each shape of the welded joints.