

Approval of Material Manufacturers
Zulassung von Werkstoffherstellern



This is to certify that the works of
Hiermit wird bescheinigt, dass die Firma

**GERDAU AÇOMINAS S.A.
PRESIDENTE ARTHUR BERNARDES STEELWORKS
OURO BRANCO
BRAZIL**

has been subjected to an approval test in accordance with the Society's Rules with satisfactory results and is approved for the manufacture of the following products:

einer Zulassungsprüfung nach den Vorschriften des Germanischen Lloyd unterzogen wurde und für die Herstellung folgender Erzeugnisse zugelassen ist:

**Steelmaking and Semi-Finished Products
in accordance with the GL-Rules for Metallic Materials,
Chapter 2**

This approval is granted provided that all products intended to be used for the construction of ships or installations classed with Germanischer Lloyd comply in every respect with the Society's Rules and Requirements.

Die Zulassung erfolgt unter der Voraussetzung, dass alle Erzeugnisse, die zum Bau von Schiffen und Anlagen mit Klasse des Germanischen Lloyd bestimmt sind, die Vorschriften des Germanischen Lloyd in jeder Hinsicht erfüllen.

Certificate of approval No.
Zulassungsbescheinigung Nr.

WZ 705 HH 4

This Certificate is valid until:
Diese Bescheinigung ist gültig bis:

2015-10-30

Part of the approval is our letter of approval ref. no. 111025-12 of 2012-10-10.
Bestandteil der Zulassung ist das Zulassungsanschreiben, Tgb.-Nr. 111025-12 vom 2012-10-10.

Hamburg, 2012-10-10

Germanischer Lloyd

i. A.

Michael Kühnel

i. A.

Oliver Krömer

Ref. no.: 111025-12



Manufacturer: Gerdau Açominas S.A.
 Presidente Arthur Bernardes Steelworks

List 1: Plates, Strips, Sections and Bars, Prematerial

Grade Remarks	Key	Supply Condition (1)	min. Thick- ness, mm	max. Thick- ness, mm	Casting Method (2)	Deoxidation	Microalloy
C- & C-Mn Steels	HZ	AC	130	300	CC	killed	acc. to standard
C- & C-Mn Steels	HZ	AR	100	900	CC / IC	killed	acc. to standard
Alloy Steels	HZ	AC	130	300	CC	killed	acc. to standard
Alloy Steels	HZ	AR	100	900	CC / IC	killed	acc. to standard

Key: BD Strip BF Wide Flats BL Plate FO Sections HZ Prematerial (Ingots, Slabs, Billets) ST Bars WFS Bulbflatbars

List 3: Forgings

Grade	Key	Supply Condition (1)	max. Thickness, mm	max. Weight	Remarks
C- & C-Mn Steels	HZ	AC	1085	22000 kg	
Alloy Steels	HZ	AC	1085	22000 kg	

Key: FA Fibre Flow Forging FF Hammer Forging GE Die Forging HZ Prematerial ST Forged Bars

(1):

AC, AF, AR = as cast, as forged, as rolled
 CR = controlled rolled
 F = ferritized
 HF = hot formed
 N = normalized
 N+T = normalized + tempered
 Q+T = quenched + tempered
 SH = surface hardened
 S+Q = solution annealed + quenched
 TM = thermomechanically rolled

(2):

CC = continuous casting
 IC = ingot casting