



AcaSal®700+Z (HX700LAD, HR700LA)

Thermomechanically rolled steel

Materialinformationsblatt (MIB)	
Material no.	-
According to	DIN EN 10346 (HX700LAD) ¹⁾ VDA 239-100 (HR700LA)
	DIN EN 10143

1) currently not standardized in DIN EN.

Usage

AcaSal®700+Z is a high strength steel based on grade S700MC thermomechanically hot-rolled strip, which is hot-dipped zinc-coated. It features a very high yield strength and tensile strength with sufficiently high expansion for cold forming processes. These products are suitable for cold bending and folding.

Delivery form

Delivery is based on the provisions of DIN EN 10149-2 in combination with the DIN EN 10051 dimensioning standard (hot-rolled strip basis) or on special delivery terms. The test unit comprises at least 20 tons, or 20 tons of each new batch, of products of the same steel grade and nominal thickness. The test unit for strip material is the coil.

In general, 50% of Table 6 from DIN EN 10051 is confirmed. Narrower thickness tolerances are possible upon request.

Special notes

The steel is available with a conventional Z100 to Z275 zinc coating in the surfaces MA and MB. Other zinc coating thicknesses are possible upon request.

Available dimensions²⁾

Thickness in mm	Width in mm
2.00 - 3.50	1,100 - 1,400

2) Other dimensions by arrangement

Chemische Zusammensetzung³⁾

(in percent by weight)

	min. in %	max. in %
C		0.12
Si		0.60
Mn		2.10
P		0.030
S		0.025
Al _{total}	0.015	
Nb		0.10 ⁴⁾
Ti		0.20 ⁴⁾
Cu		0.20

3) Heat analysis

4) The sum of Nb, V and Ti is not permitted to exceed 0.22%

Mechanical properties⁵⁾

Yield strength R _{p0,2} in MPa	
transverse	≥ 700
longitudinal	≥ 700

Tensile strength R _m in MPa	
transverse	750 - 900
longitudinal	760 - 950

Total elongation A ₈₀ in %	
transverse	≥ 8
longitudinal	≥ 10

5) Test direction is according to DIN EN transverse and according to VDA in longitudinal rolling direction.

Processing instructions

This steel grade is used for cold-formed components in a very wide range of designs. It is used in particular to manufacture:

- Longitudinal beams
- Frame structures
- Cold-pressed parts
- Cold-rolled sections
- Structural pipes

Users of this steel grade must ensure that their calculation, design and processing methods are appropriate for the material.

Commitments regarding certain properties or a certain purpose of use require written agreements. Technical changes as well as typesetting and printing errors reserved.



**SALZGITTER
FLACHSTAHL**

A Member of the Salzgitter Group

AcaSal®700+Z (HX700LAD, HR700LA)

Thermomechanically rolled steel

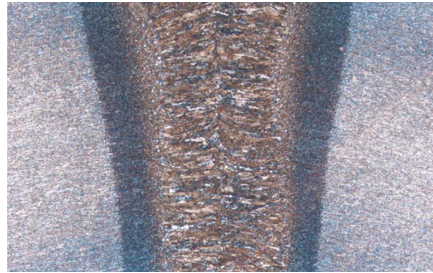
The forming process used must be suitable for the intended application and must comply with the state-of-the-art; it is of fundamental importance to the processing behavior of this steel grade.

Typical applications to utilize the high strength potential combined with weight savings in the component are vehicle construction, longitudinal beams and cross-members in trucks and trailers, safety parts in cars, and rail car construction.

Microstructure

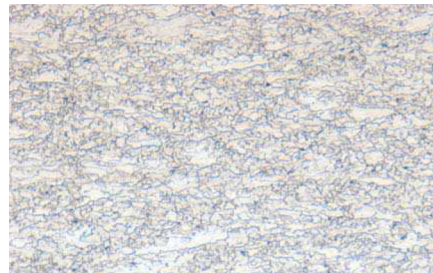
The AcaSal®700 microstructure typically consists of bainite.

Occasionally, there can be minimum content of other phases (e.g., martensite, ferrite).



Above: Laser joint microstructure: Completely welded through

Below: Microstructure after hot-dip zinc coating: Bainite with slight martensite content



Commitments regarding certain properties or a certain purpose of use require written agreements. Technical changes as well as typesetting and printing errors reserved.



Salzgitter Flachstahl GmbH · Eisenhüttenstraße 99 · 38239 Salzgitter

Telefon +49 (0) 5341 21-2890 · Telefax +49 (0) 5341 21-8536

E-Mail flachstahl@salzgitter-ag.de · <http://www.salzgitter-flachstahl.de>