



钢铁之家

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# 全球钢号百科!

Global Steel Grade Encyclopedia



涵盖的行业或国家与地区类别



国际材料与试验协会

GJB

国家军用标准



动力机械工程师协会

EU

前欧洲标准化

AISI

美国钢铁学会



德国工业标准

AMS

航空航天材料规范



国际标准

JASO

日本汽车标准组织

EN

欧洲标准

JB

机械行业标准

UNS

统一编号系统

UNI

意大利标准



美国机械工程师协会

SS

瑞典标准



国家标准



日本工业标准

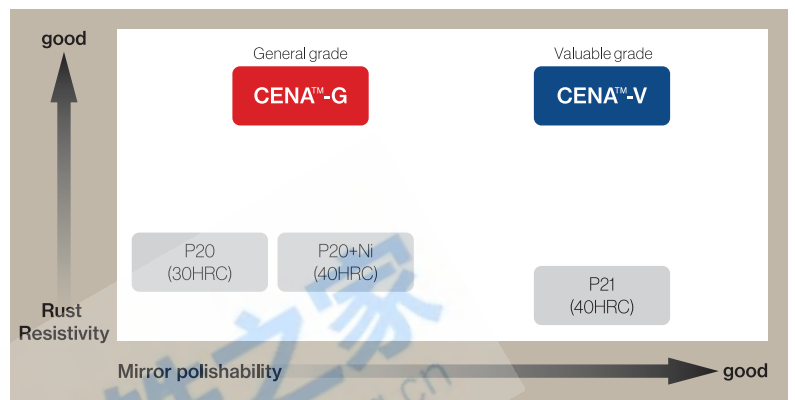
CENA-G and CENA-V, both has improve good rust resistivity.

CENA-G : General grade  
CENA-V : Valuable grade

Selectable two grade materials,  
differ in mirror polishability.

### Rust Resistivity and Mirror Polishability

\* our evaluation



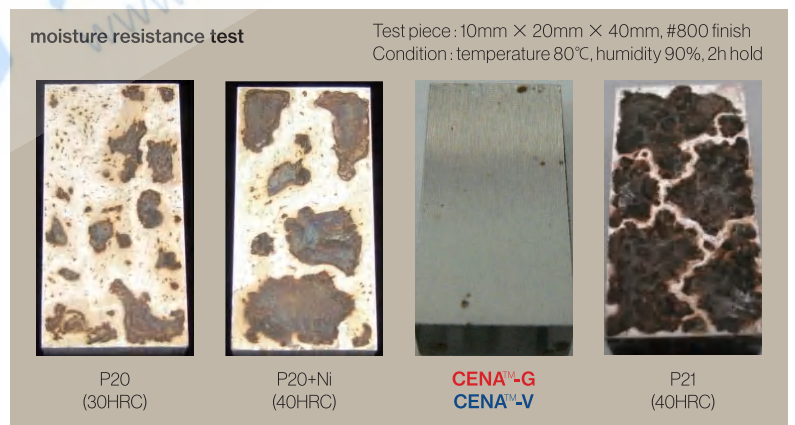
\*Comparison materials are equivalent to below.  
P20 (30HRC) : HI-PM™ 7, P20+Ni (40HRC) : HI-PM™ MAGIC,  
P21 (40HRC) : HI-PM™ PRO.

CENA-G and CENA-V, both has improved rust resistivity compared to conventional pre-hardened P20 or P21

Expected effects:

- Easy cavity maintenance.
- Fewer rust-preventive agent.
- Prevent water-cooling hole clogging.

### Rust Resistance



### Mirror Polishability

Interference figure comparison of mirror polished surface

CENA-G is suitable for general surface polishing.  
CENA-V is suitable for high grade surface polishing.

Its characteristics are easily to glossy finish after polishing and prevent surface waviness come out.

	P20 (30HRC)	P20+Ni (40HRC)	CENA™-G	CENA™-V
6μm diamond Polishing (#3000)				
3μm diamond Polishing (#8000)				

<Attention>

- Polishing is our evaluation.
- More than 5000 mirror finished surface strongly depends on a person's polishing skill.
- Poor polishing skill may decrease mirror surface quality.

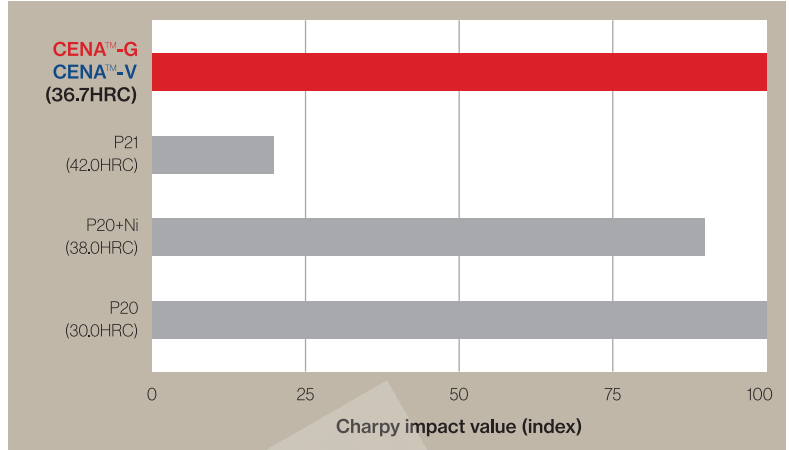
<Attention> The characteristics, photos, charts, ranking and evaluation of this catalog are representative value by our test data, it does not guarantee the quality of the product. This catalog and its contents are subject to change without notices.

CENA-G and CENA-V, both has high impact toughness and its characteristics hard to crack.

Expect effects:

- Reduce breakage of thin ribs during machining.

### Toughness



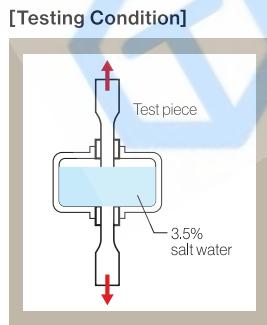
\*Comparison are equivalent to our products below.

P20 (30.0HRC): HI-PM™ 7, P20+Ni (38.0HRC): HI-PM™ MAGIC, P21 (42.0HRC): HI-PM™ PRO.

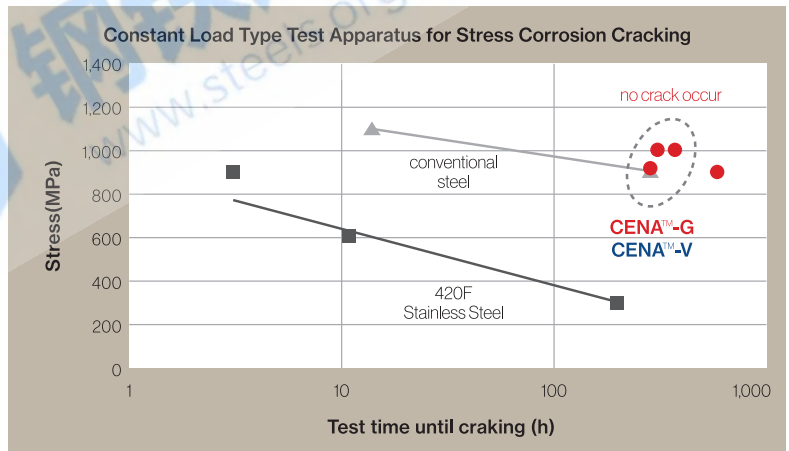
CENA-G and CENA-V, both has improved stress corrosion cracking resistance compared to 420F improvement steel.

Expected effect:

- Prevent water-cooling hole clogging.



### Resistance to Stress Corrosion Cracking



\*Comparison are equivalent to our products below.

420F: HI-PM™ 38 (49HRC): conventional steel: CENA™1 (40HRC).

CENA-G and CENA-V, both has high toughness, improves crack resistance from welding build-up.

These mold steel can be utilized in a variety of applications, including home appliances, auto -motive parts and bathroom fixtures.

### Characteristics Comparison

	Hardness (HRC)	Mirror polishability	Rust resistance	Toughness	Weldability
CENA™-G	35-41	B	A	A	A
CENA™-V	35-41	A	A	A	A
HI-PM™7	29-33	C	D	A	A
HI-PM™ MAGIC	37-41	B	D	B	A
HI-PM™ PRO	37-41	A	D	C	B

Ranking: A---Best, B---Ordinary, D---Poor (Remark) Please refer above as general concept