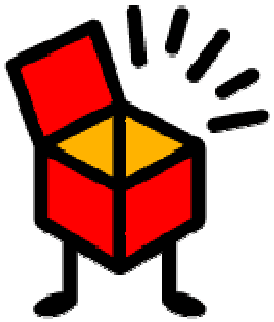
Hitachi tool steels for Die Casting

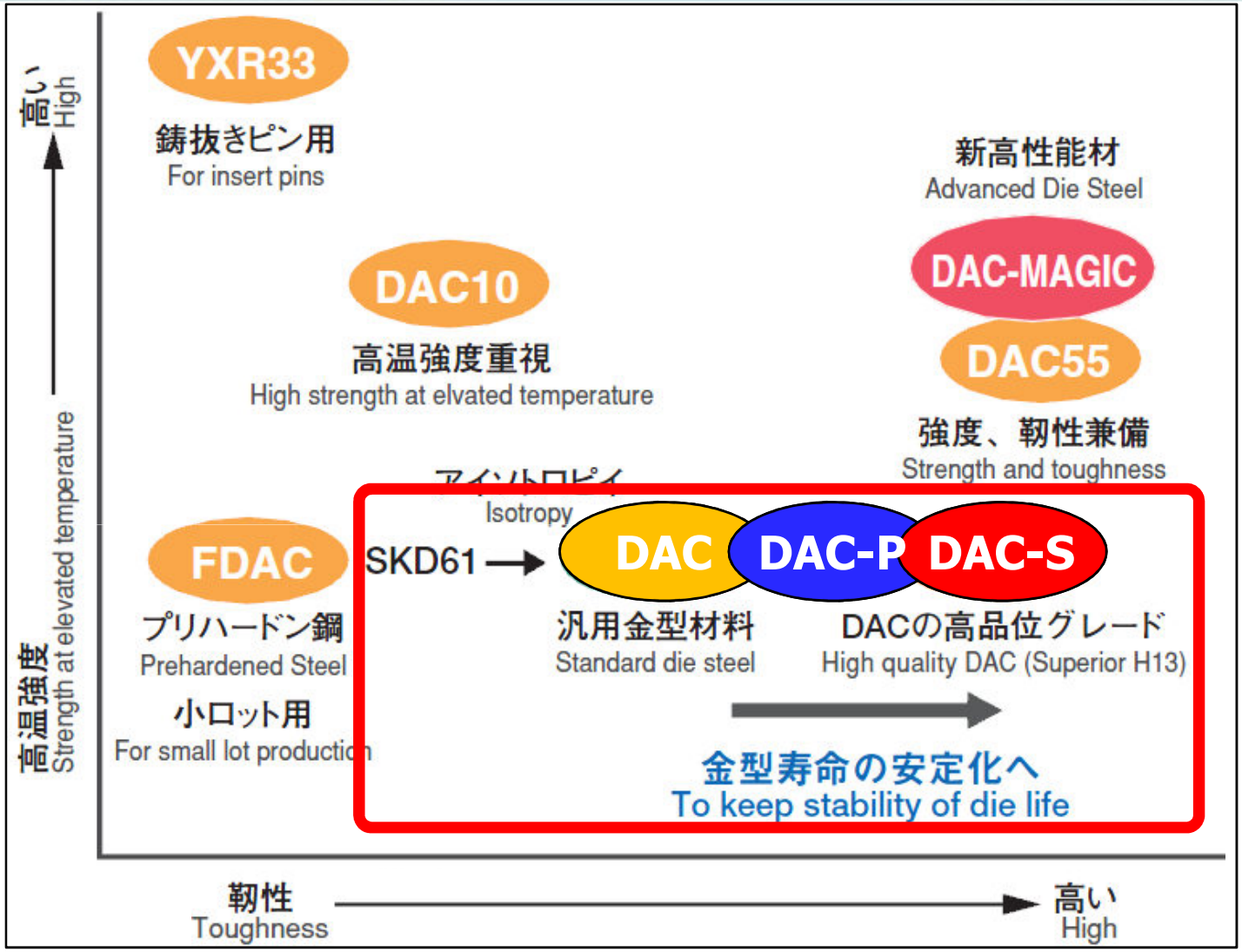
DAC-P & DAC-S



Materials Mag!c

Hitachi Metals Singapore Pte. Ltd.

1. Die Steels for Die Casting " DAC series "



(1) DAC-P <DAC-Premium>

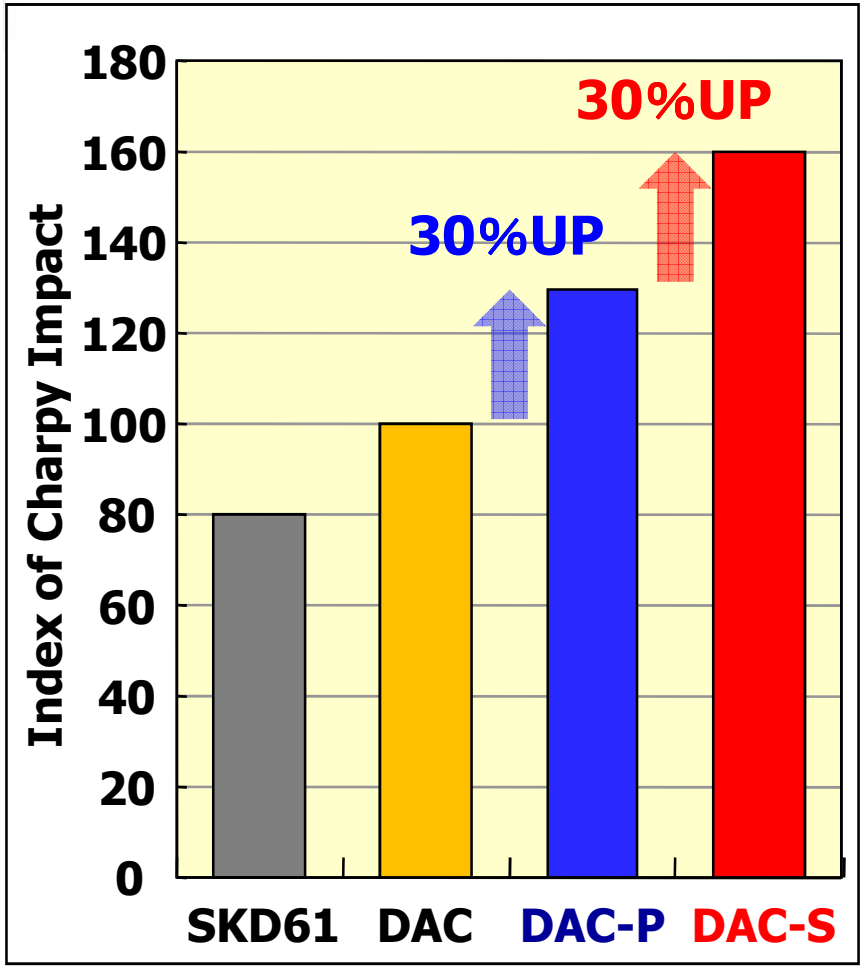
- **Charpy impact value is 30% higher than that of DAC.**
- **It is conformable to Premium H13.**

(2) DAC-S <DAC-Superior>

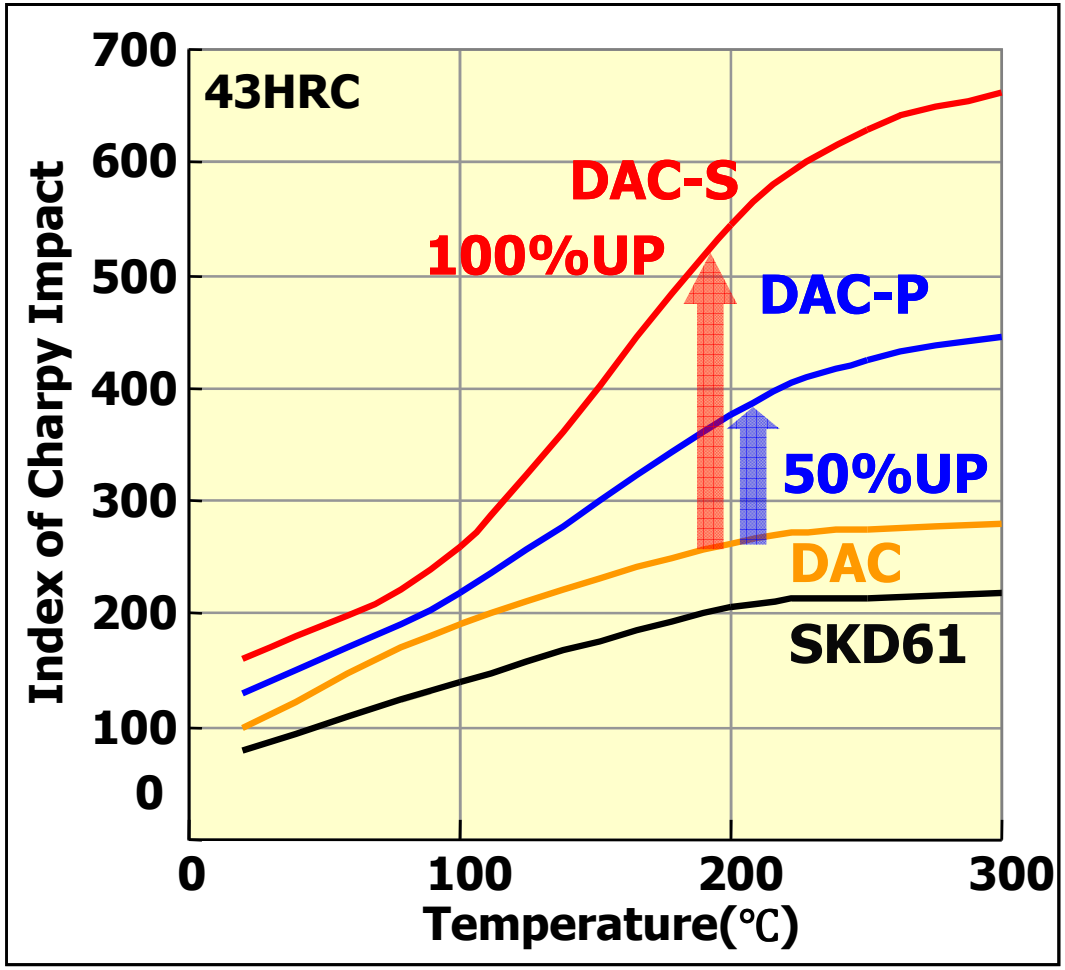
- **Charpy impact value is 60% higher than that of DAC.**
- **It is conformable to Superior H13.**

2. Properties of DAC-P, DAC-S

(1) Charpy Impact Values (@RT)



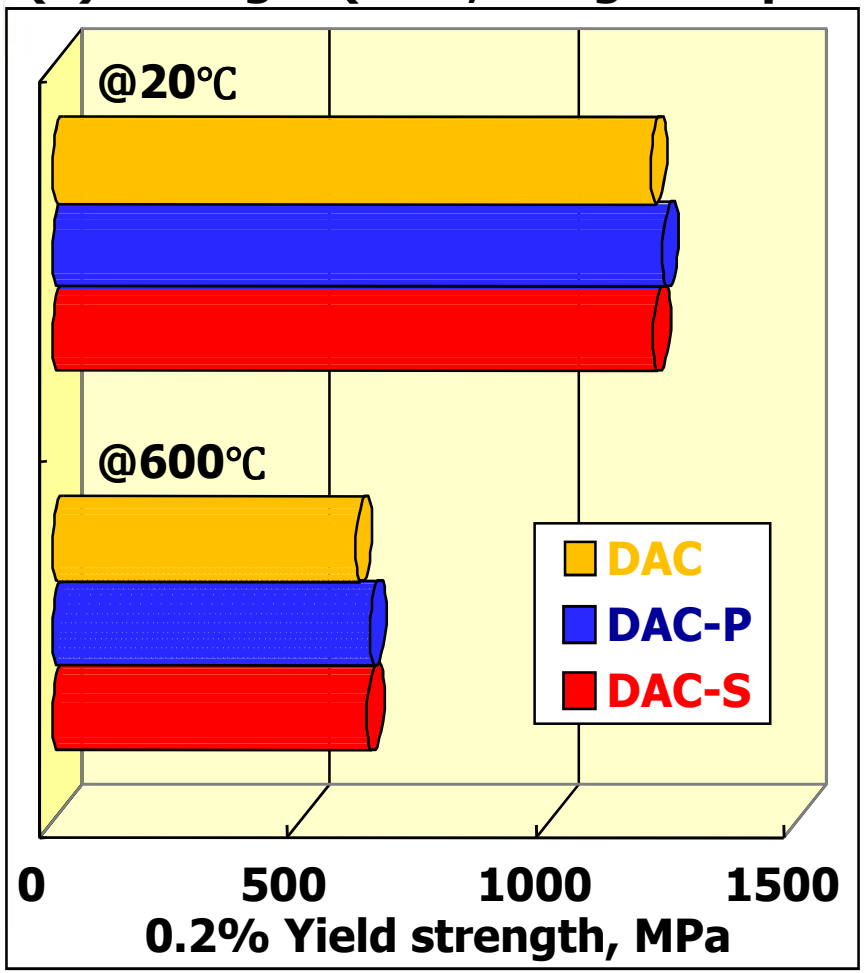
(2) Charpy Impact Value (@High temp.)



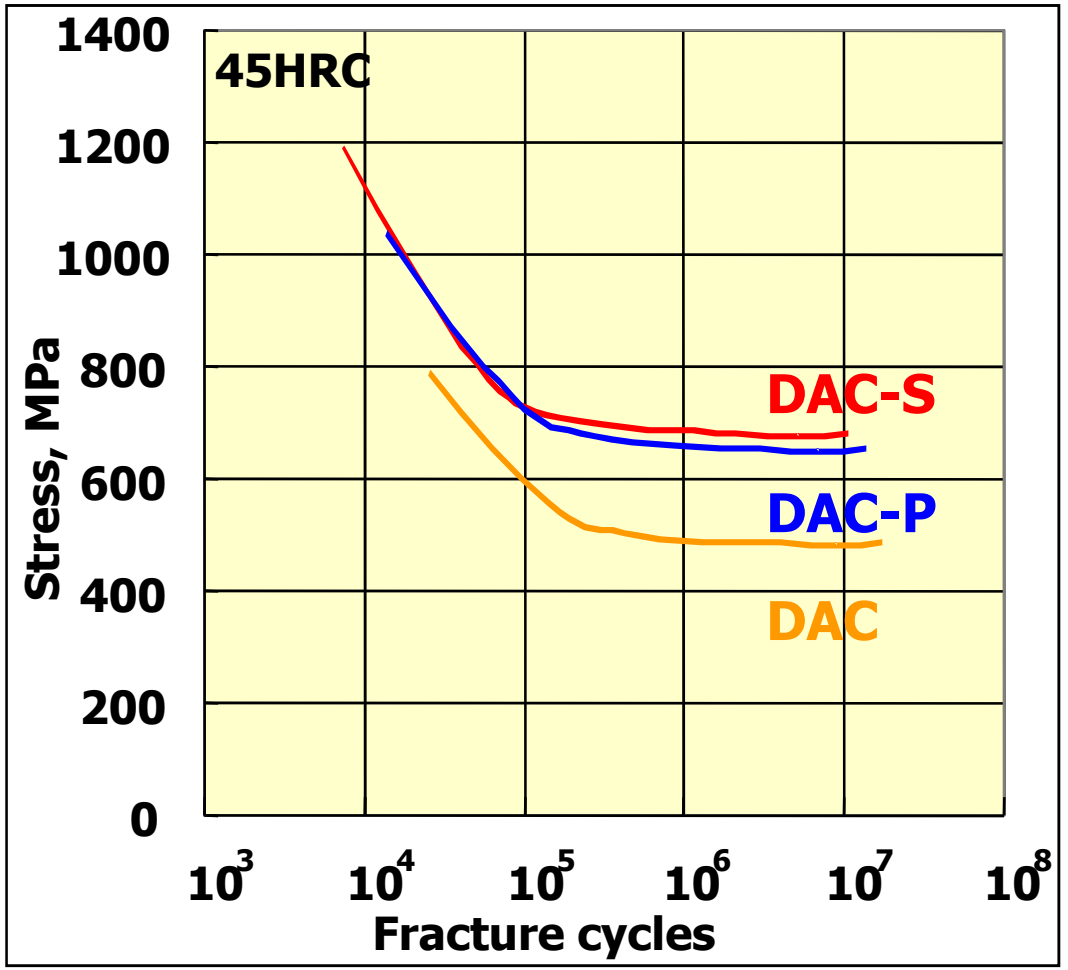
Die Surface temperature：200～300℃
⇒High temp. toughness：Important properties affecting cracking

2. Properties of DAC-P, DAC-S

(3) Strength (@RT, @High temp.)



(4) Fatigue Strength



Heat crack resistance
⇒ High temperature strength

Fatigue Strength is improved by material cleanness

3. Summary

Properties of DAC-P, DAC-S (comparison to DAC)

Grades	Chemical Composition	Toughness		Strength		Machinability
		20℃	200℃	20℃	600℃	
DAC-P	same as DAC	30%UP	50%UP	Equal	Equal	Equal
DAC-S	same as DAC	60%UP	100%UP	Equal	Equal	Equal

*DAC is equivalent to JIS SKD61, 0.4C-5.2Cr-1.3Mo-V

DAC-P ⇒ Premium H13

DAC-S ⇒ Superior H13

⇒Acceptable to NADCA High Quality Level

*NADCA：North American Die Cast Association

DAC-P, DAC-S

⇒ contribute to life stabilization