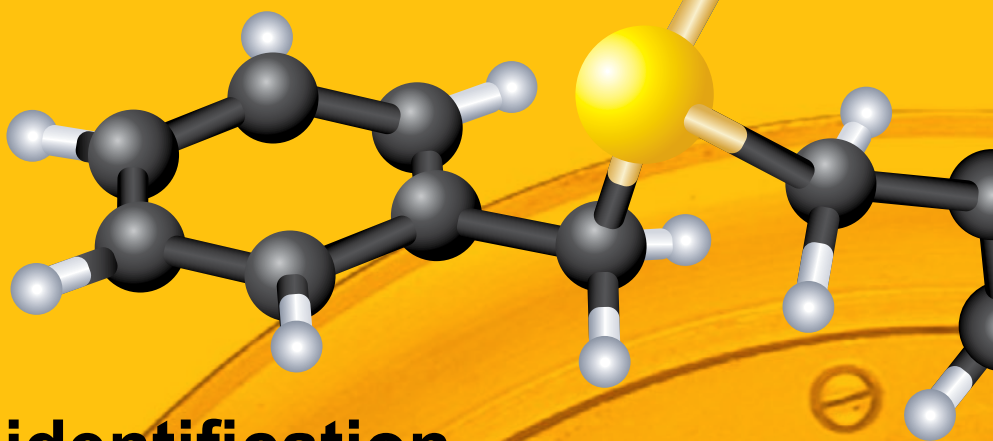


SmartComp™

KEY to METALS Intelligent Search by Chemical Analysis

www.keytometals.com/smartcomp



Immediate identification

What grade corresponds to this composition?

What is its designation? Where is it from?

What are its other properties?

What are its equivalents? How can I replace it?

in a matter of seconds

1. Take the unknown chemical composition

SmartComp

Select base element: Fe

Select similarity threshold: 0.95

Select standard: --All--

Element	Value	Element	Value	Element	Value	Element	Value
C	0.68	Co	0.002	Cr	0.005		
Si	0.14	Al	0.01	Ni	0.007	Fe	0.61
Mn	0.33	W	0.14	V	0.004	Zn	
P	0.012	Mo	0.01	Cu			
S	0.015	N		Pb	0.004	Au	
O	1.40	P		La		Sr	

Submit Clear

→ As you get it from the measurement instrument, test results or documentation

2. Get the results – instantly

Element	Value	Element	Value	Element	Value	Element	Value
C	0.68	Co	0.002	Cr	0.005		
Si	0.14	Al	0.01	Ni	0.007	Fe	0.61
Mn	0.33	W	0.14	V	0.004	Zn	
P	0.012	Mo	0.01	Cu			
S	0.015	N		Pb	0.004	Au	
O	1.40	P		La		Sr	

Results found 204

Material	Country	Grade
St 523	United Kingdom / B.S.	0.94
St 523	United Kingdom / B.S.	0.94
St 523	Czech Republic / CSN	0.94
St 523	Czech Republic / CSN	0.94
St 523	China / GB	0.94
St 523	China / GB	0.94

→ It is easy-to-use, with fingertip access, desktop- or Web-enabled

3. Review the metal properties

Chemical Composition

Element	Min.	Max.	Agreement
C	0.9500	1.0500	
Mn	0.2000	0.4000	
P		0.0200	
S		0.0200	
Si	0.1000	0.3500	
W	1.4000	1.4000	
Ni		0.3000	
Cr		0.1000	

→ SmartComp™ is a silent expert readily available whenever you need it

 **KEY to METALS**

SmartComp™ DOESN'T ONLY SAVE TIME. IT MAKES MONEY. READ ON TO SEE HOW. ▶

KEY to METALS Intelligent Search by Chemical Analysis

the problem

New generation of instruments can now provide you with the chemical analysis of a metal literally in seconds. BUT...

You still cannot figure out what it really is. You cannot identify the grade designation, its origin and properties or its equivalents.

Classic search engines CANNOT answer those questions because

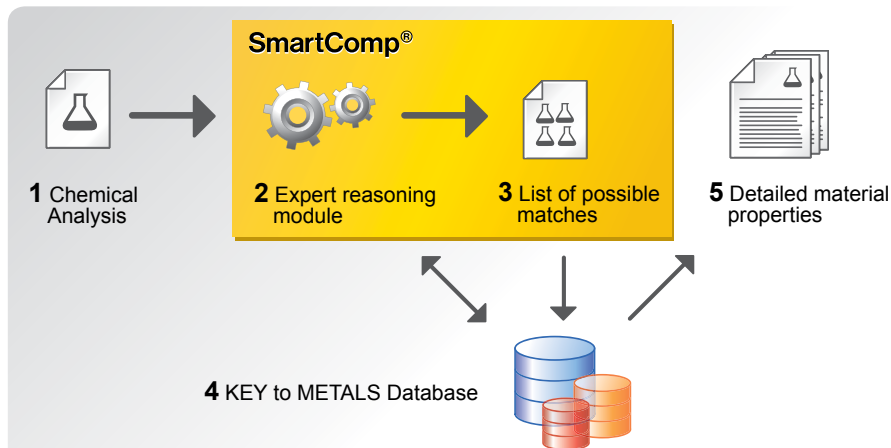
- Instruments detect trap elements, impurities and oligoelements, not defined by standard specifications – their presence would be ignored by an expert, but search engines are bogged down by these elements
- There is a measurement error and non-homogeneity in the material
- They cannot really rank elements by relevance for the analyzed steel grade

Hence material identification still induces costs and decreases revenue

- Thousands of working hours spent in research, sometimes in vain
- Cost of communication, acquiring specifications and standards
- Rework and scrap due to inadequate material selection
- Lost business and business opportunities on domestic and international markets

the solution

SmartComp™, a KEY to METALS professional add-on, the worldwide unique program for unprecedented chemical analysis search:



- 1 Enter analysis results as you receive them from the measurement instrument, from the metallurgical lab or from documentation
- 2 By using original expert reasoning module and SmartSearch™ technology, based on fuzzy sets and metallurgical expertise, it distinguishes important composition variations from the noise and trap elements
- 3 Provides you with a list of possible matches, prioritized by similarity factors
- 4 Finds matches and equivalents from over 175,000 alloys from the KEY to METALS database
- 5 Gives you an opportunity to immediately view detailed material properties through hot links with the KEY to METALS database

Who is it for?

SmartComp™ is indispensable for materials and engineering professionals in

- Metallurgical laboratories
- Engineering design and reverse engineering
- Manufacturing control and quality assurance
- Material sourcing
- Research institutes and universities
- Defense and security
- and elsewhere

SmartComp™ doesn't only save money, it earns money

A Mid-Size Metallurgical Lab case 1.

- Activity: 200 analysis/month
- Increased revenue: 12 to 20%

A Steel Producer case 2.

- Activity: 9000 analysis/month internally, 60 analysis/month externally
- Increased process control efficiency: 4%

Benefits

- Reduces the need for external metallurgical consulting
- Significant savings in purchasing standards and specifications
- In either Web or CD Edition, through the Internet you always get up-to-date information
- Integrated within KEY to METALS, for additional time-savings and better performance
- Special extended support program for metallurgical laboratories
- Very affordable, excellent Return-on-Investment

SmartComp is based on a unique, patented SmartMetals™ technology that is recognized and used by many of the world's most prominent companies, including global leaders in the spectrometer industry.