



## List of Material in MADAMS Database (with citation of original references)

Below is the material list that we currently have the flow stress data. This list also cites the original references.

Thank you,

Ferrous Materials	Original Reference	ERC Report
20 MoCrS4 steel	Completed questionnaire from Prof. Meyer at Chemnitz	[2]
21Cr16Ni5Mn3Mo steel	[Meyer, 1992]	[2]
25 CrMo 4 Steel	[Meyer, 2000]	[2]
30 CrNiMo 8 Steel	[Meyer, 2000]	[2]
35 NiCrMo 12 5	[Meyer, 1982]	[2]
35 C 3Ni 1Cr	[Meyer, 1992]	[2]
35NCD16 steel	[Bois, 1985]	[1]
40 NiCrMoV 15 7	[El-Magd, xxxxa]	[1]
42CD4 steel (I)	[Pantale, 1996]	[1]
42CD4 steel (II)	[Bois, 1985]	[1]
42CrV6 steel	[El-Magd, xxxxa]	[1]
45 CrMo 67 steel	[Schulze, 2000]	[2]
45 CrMoV 67 steel	[Meyer, 1988]	[2]
46 Mn 7 steel	[Meyer, 1982]	[2]
A533B steel	[Pao, 1992]	[1]
AISI 1020 steel	[Lei, 1999]	[1]
AISI 1045 steel (ERC)	[Koppka, 2001]	[2]
AISI 1151 steel	[Gilat, 1994] and [Gilat, 1994a]	[1]
AISI 316H stainless steel (I)	[Eleiche, 1985]	[1]
AISI 316H stainless steel (II)	[Albertini, 1984]	[1]
AISI 4340 steel	[Johnson, 1985]	[1]
AISI 4340 steel (heat treated)	[Deltort, 1994]	[1]
AISI 52100	[Huang, 2002]	-
AISI 52100	[Caccialupi, 2003]	-

AISI 52100	[Poulachon, 2000]	-
AISI 52100	[Ramesh, 2002]	-
AISI 52100	[Umbrello, 2004]	-
Armco iron	[Johnson, 1985]	[1]
C1008 steel	[Rosenberg, 1986]	[1]
C45E Steel	Completed questionnaire from Prof. Meyer at Chemnitz	[2]
C45K Steel	[Bretz, 1983]	[2]
Carbon steel (0.08%C)	[Johnson, 1983]	[1]
Carbon steel (0.1%C annealed)	[Maekawa, 1991]	[1]
Carbon steel (0.15%C annealed)	[Usui, 1982]	[1]
Carbon steel (0.16%-0.55%C, contributed by Oxley)	[Oxley, 1989]	[1]
Carbon steel (0.45%C annealed)	[Maekawa, 1998]	[1]
Ck 45	[Bretz, 1983]	[2]
Ck 45N	[Treppmann, 2001]	[2]
Cr-Mo steel	[Maekawa, 1996]	[1]
Cr-Mo-Ni steel	[Childs, 1990]	[1]
En-8 steel	[Haque, 1985]	[1]
Fe-Mn-Al-Si Steel	[Grassel, 2000]	[2]
H13 (ERC-Shatla)	[Shatla, 1999]	[1]
H13 (ERC-Koppka)	[Koppka, 2001]	[2]
HR1020 steel	[Gilat, 1994]	[1]
Low carbon free cutting steel	[Childs, 1997]	[1]
Mar 190 (Armor steel)	[Juanicotena, 1997]	[1]
Mn-B steel	[Maekawa, 1996]	[1]
Mn-Cr steel (18%Mn, 18%Cr)	[Maekawa, 1993]	[1]
Mn-Cr steel (18%Mn, 5%Cr)	[Maekawa, 1986]	[1]
Nitrogen alloy steel (0.03%C)	[Couque, 2000]	[1]
Nitrogen alloy steel (0.03%C, cold drawn)	[Lichtenberger, 1997]	[1]
Nitrogen alloy steel (0.08%C)	[Skoglund, 2000]	[1]
O1 (heat treated)	[Brar, 2000]	[1]
P20 (ERC-Koppka)	[Koppka, 2001]	[2]
P20 (ERC-Ozel)	[Özel, 1998]	[1]
P20 (ERC-Shatla)	[Shatla, 1999]	[1]
Reactor pressure vessel steel	[Buchar, 1985]	[1]
StE 460 steel	[Schulze, 2000]	[2]
StE 690 steel	[Schulze, 2000]	[2]
StE 890 steel	[Schulze, 2000]	[2]
X 3 CrNiMoNbN 23 17	[Meyer, 1982]	[2]
X45 CrSi 9 3 steel (I)	[Meyer, 1982]	[2]
X45 CrSi 9 3 steel (II)	[Schulze, 2000]	[2]

<b>Non-Ferrous Materials</b>	<b>Original Reference</b>	<b>ERC Report</b>
AA 7075	[Treppmann, 2001]	[2]
Alpha Brass	[Usui, 1982]	[1]
A359 (20%CSi)	[Migueluez, 2000]	[1]
A5 Aluminum	[Farre, 2000]	[1]
AA 7075 aluminum alloy	[Brodmann, xxxx]	[1]
Al 2007	[Shatla, 1999]	[1]
Al 2618+A359 composite	[Migueluez, 2000]	[1]
Al 6061-T6	[Rosenberg, 1986]	[1]
Al 6061-T6 Aluminum Alloy	[Meyer, 1992]	[2]
Al 7075 aluminum alloy	[Lee, 1998]	[1]
Al 8090 aluminum alloy	[Xu, 2001]	[1]
AlCuMg 1 Aluminum Alloy	[Bretz, 1983]	[2]
Al-Mg Alloy 5086	[Armstrong, 2000]	[1]
CP Titanium	[Sheikh-Ahmad, 1995]	[1]
CuC2 copper	[Juanicotena, 1997]	[1]
Electrolytic copper	[El-Magd, xxxxa]	[1]
Gamma-TiAl	[Gardiner, 1997]	[1]
Haynes-188 (Cobalt Alloy)	[Gilat, 1994]	[1]
Magnesium	[El-Magd, xxxxa]	[1]
Mg-Al-Zn alloy	[El-Magd, xxxx]	[1]
Ni3Al	[Sizek, 1993]	[1]
Ni75 Al25	[El-Magd, xxxxa]	[1]
Nickel-200	[Rosenberg, 1986]	[1]
OFHC (Oxygen-Free High Conductivity) copper	[Johnson, 1985]	[1]
Pure 1100-0 Aluminum	[Meyer, 1992]	[2]
Pure Aluminum (annealed)	[Usui, 1982]	[1]
Pure Nickel	[El-Magd, xxxxa]	[1]
Ta alloy	[Nemat-Nasser, 1997]	[1]
Tantalum	[El-Magd, xxxxa]	[1]
Tantalum (high purity)	[Giannotta, 1985]	[1]
Ti-15V-3Cr-3Sn-3Al	[Ogawa, 1997]	[1]
Ti-6Al-4V (I)	[Usui, 1984]	[1]
Ti-6Al-4V (II)	[Lee, 1998]	[1]
Ti-6Al-4V (III)	[Macdougall, 1997]	[1]
Ti-6Al-4V (IV)	[Bois, 1985]	[1]
Ti-6Al-6V-2Sn	[Maekawa, 1994]	[1]
TiAl6V4	[Treppmann, 2001]	[2]
TiAl6V4 (Tempered)	[Meyer, 1984]	[2]
TiAl6V4 (VCF and annealed)	[Meyer, 1997]	[2]
Titanium (high purity)	[Gray III, 1997]	[1]
Tungsten alloy	[Lee, 1998a]	[1]
Tungsten Monocrystals	[Meyer, 1989]	[2]

Vanadium	[Lennon, 1997]	[1]
Various Titanium alloy	[Mazeau, 1997]	[1]
W-2 Tungsten alloy	[Rosenberg, 1986]	[1]
Zircoloy	[Kobayashi, 1985]	[1]
Zirconium (high purity)	[Chen, 1997]	[1]
Zr-2.5Nb	[Radford, 2000]	[1]

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