

ACIRS Product Catalogue

June 2019

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**** NEW ****

ACIRS-G8-2019

General Coal Reference Material

ACIRS-H7-2019

Hardgrove Grindability Reference Material

Australian Coal Industry Reference Samples (ACIRS)

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ACIRS COAL MATRIX REFERENCE MATERIALS

- * **General Coal RMs:** ACIRS-G8-2019
- * **Sulfur RMs:** ACIRS-S1A-2011, ACIRS-S2B-2015, ACIRS-S1C-2011 and ACIRS-S2D-2016
- * **Trace Elements in Coal RMs:** ACIRS-M1-2014-Lot#2 and ACIRS-M2-2018

Parameter	ACIRS-G8	ACIRS-M1-Lot#2	ACIRS-M2	ACIRS-S1A	ACIRS-S2B	ACIRS-S1C	ACIRS-S2D
Ash, % d	10.14	18.68	9.32				
Total Sulfur, % d	0.590	2.39		0.42	0.69	1.46	2.88
Chlorine, % d	0.052	0.014			0.027		0.010
Phosphorus, % d	0.027	0.098					
Relative Density, d	1.382	1.417					
Fluorine, mg/kg d		160	176		37		
Mercury, mg/kg d	0.02	0.122	0.041		0.057		0.281
Volatile Matter, % d	20.23						
Gross Calorific Value, MJ/kg d	32.357						
Total Carbon, % d	79.44						
Hydrogen, % d	4.40						
Nitrogen, % d	1.79						
Selenium, mg/kg d		1.5	0.3(indicative)				
Arsenic, mg/kg d		3.9	0.3				
Cadmium, mg/kg d		0.04*	0.02*				

* = *indicative*

ACIRS-G8-2019 (125 g)

Price*: \$220.00

ACIRS-M1-2014-Lot#2 (125 g)

Price*: \$200.00

ACIRS-S1A-2011 and ACIRS-S1C-2011 (250 g)

Price*: \$350.00

ACIRS-S2B-2015 and ACIRS-S2D-2016 (125 g)

Price*: \$180.00

ACIRS-M2-2018 (50g)

Price: \$125.00

* AUD excluding delivery costs and GST

ACIRS-FLY ASH REFERENCE MATERIAL* **ACIRS-A1-2016**

ACIRS-A1-2016			
Ash Analysis Parameters		Ash Fusibility Parameters	
SiO ₂ wt%, d	44.1	Reducing Temperatures °C	
Al ₂ O ₃ wt%, d	28.9	Deformation	1257
Fe ₂ O ₃ wt%, d	14.6	Spherical	1287
CaO wt%, d	6.05	Hemispherical	1309
MgO wt%, d	1.25	Flow	1367
Na ₂ O wt%, d	0.43	Oxidising Temperatures °C	
K ₂ O wt%, d	0.46	Deformation	1349
P ₂ O ₅ wt%, d	1.26	Spherical	1383
TiO ₂ wt%, d	1.56	Hemispherical	1398
Mn ₃ O ₄ wt%, d	0.22	Flow	1429
BaO wt%, d	0.183		
SrO wt%, d	0.16		
SO ₃ wt%, d	0.32		
Indicative Parameters			
Co mg/kg, d	43	Pb mg/kg, d	47
Cr mg/kg, d	58	V mg/kg, d	176
Cu mg/kg, d	99	Zn mg/kg, d	90
Ni mg/kg, d	47		

ACIRS-HARDGROVE GRINDABILITY REFERENCE MATERIAL* **ACIRS-H7-2019**
Set of 4 x1 kg samples

ACIRS-H7-2019	
Hardgrove Grindability Index	
Sample A	30
Sample B	46
Sample C	63
Sample D	86

Other ACIRS products* **ACIRS-ELECTRODE CARBON: ACIRS-EC-2011**

ACIRS-EC-2011 is a 1 kg jar of inert electrode carbon material intended for use in the Gray-King Coke Type test as described in AS 1038.12.2 and ISO 502

ACIRS-EC-2011			
Moisture, %	0.2	Size Distribution	Mass, %
Ash, % d	2.8	+212 µm	0.2
Volatile Matter, % d	0.8	-212 +125 µm	12.2
Relative Density, d	2.08	-125 +63 µm	25.4
		-63 µm	62.2

ACIRS-A1-2016 (80 g)**Price*: \$200.00****ACIRS-H7-2019 (4 x 1kg)****Price*: \$695.00****ACIRS-EC-2011 (1 kg)****Price*: 150.00**

* AUD excluding delivery costs and GST