



# ACIRS Product Catalogue

November 2024

[www.acirs.com.au](http://www.acirs.com.au)



## WHAT'S NEW FROM ACIRS?

### LATEST RELEASES

ACIRS-A2-2024

ACIRS-H10-2024-Lot#1

Australian Coal Industry Reference Samples (ACIRS)  
PO Box 2315, Dangar NSW 2309, AUSTRALIA  
Phone: +61 (2) 4926 4870 Fax: +61 (2) 4926 4902  
E-mail: [acpsnational@acps.com.au](mailto:acpsnational@acps.com.au)  
ABN 74 001 837 145



## ACIRS COAL MATRIX REFERENCE MATERIALS

- **General Coal RMs:** ACIRS-G10-2022
- **Sulfur RMs:** ACIRS-S2A-2020, ACIRS-S2B-2015, ACIRS-S2C-2023 and ACIRS-S2D-2016
- **Trace Elements in Coal RMs:** ACIRS-M2-2018

Parameter	ACIRS-G10	ACIRS-M2	ACIRS-S2A	ACIRS-S2B	ACIRS-S2C	ACIRS-S2D
Ash, % d	10.46	9.32	-	-	15.10	18.02
Total Sulfur, % d	0.606	-	0.433	0.692	1.230	2.877
Chlorine, % d	0.052	-	-	0.027	0.0086	-
Phosphorus, % d	0.020	0.1109	-	-	0.0352	-
Relative Density, d	1.379	-	-	-	-	-
Fluorine, mg/kg d	76	176	-	37	94	-
Mercury, mg/kg d	0.029	0.041	-	0.057	0.111	-
Volatile Matter, % d	19.79	-	-	-	-	-
Gross Calorific Value, MJ/kg d	32.331	-	-	-	-	-
Total Carbon, % d	79.45	-	-	-	-	-
Hydrogen, % d	4.365	-	-	-	-	-
Nitrogen, % d	1.801	-	-	-	-	-
Carbonate Carbon, % d	0.032	-	-	-	-	-
Selenium, mg/kg d	-	0.3	-	-	-	-
Arsenic, mg/kg d	-	0.3	-	-	-	-

ACIRS-G10-2022	(125 g)	Price: \$250.00	
ACIRS-S2A-2020	(125 g)	Price: \$200.00	
ACIRS-S2B-2015	(125 g)	Price: \$200.00	Price in AUD excluding GST and delivery costs
ACIRS-S2C-2023	(125 g)	Price: \$300.00	
ACIRS-S2D-2016	(125 g)	Price: \$200.00	
ACIRS-M2-2018	(50 g)	Price: \$155.00	

ACIRS-G10-2022, ACIRS-S2C-2023, ACIRS-H10-2024-Lot#1 and ACIRS-A2-2024 have been certified under ACIRS' recently acquired ISO 17034 NATA scope of accreditation.

**ACIRS COAL ASH REFERENCE MATERIAL**

**ACIRS-A2-2024**

ACIRS-A2-2024			
Ash Analysis Parameters		Ash Fusibility Parameters	
SiO <sub>2</sub> wt%, d	58.0	Reducing Temperatures °C	
Al <sub>2</sub> O <sub>3</sub> wt%, d	26.0	Deformation	1310
Fe <sub>2</sub> O <sub>3</sub> wt%, d	8.8	Spherical	1370
CaO wt%, d	2.61	Hemispherical	1400
MgO wt%, d	1.03	Flow	1480
Na <sub>2</sub> O wt%, d	0.36	Oxidising Temperatures °C	
K <sub>2</sub> O wt%, d	0.90	Deformation	1430
TiO <sub>2</sub> wt%, d	1.42	Spherical	1460
Mn <sub>3</sub> O <sub>4</sub> wt%, d	0.12	Hemispherical	1480
P <sub>2</sub> O <sub>5</sub> wt%, d	0.55	Flow	1520
SO <sub>3</sub> wt%, d	0.13		
*SrO wt%, d	0.04	*Parameters not included in ACIRS' NATA scope of accreditation.	
*BaO wt%, d	0.05		
*ZnO wt%, d	0.01		

ACIRS-A2-2024 (75 g) Price: \$250.00  
 ACIRS-H10-2024-Lot#1 (4 x 1 kg) Price: \$990.00  
 ACIRS-EC-2011 (1 kg) Price: \$150.00

Price in AUD excluding GST and delivery costs

**ACIRS HARDGROVE GRINDABILITY REFERENCE MATERIAL**

**ACIRS-H10-2024-Lot#1**

Set of 4 x 1 kg samples

ACIRS-H10-2024-Lot#1	
	Hardgrove Grindability Index
Sample A	30
Sample B	48
Sample C	65
Sample D	84

**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			
		Size Distribution	Mass, %
Moisture, %	0.2		
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-G10-2022, ACIRS-S2C-2023, ACIRS-H10-2024-Lot#1 and ACIRS-A2-2024 have been certified under ACIRS' recently acquired ISO 17034 NATA scope of accreditation.