



**GCE AS**

**B480U20-1A**



**MONDAY, 20 MAY 2024 – MORNING**

**GEOLOGY**

**MINERAL DATA SHEET FOR USE WITH AS COMPONENT 2**

Name	Cleavage/Fracture	Hardness	Relative Density	Streak	Lustre	Colour	Other diagnostic properties
Quartz	RF *none/conchoidal	7	2.65	scratches streak plate	vitreous	colourless, milky but variable	hexagonal prisms terminated by pyramids
Orthoclase Feldspar	RF *2 good, 90	*6	2.6	scratches streak plate	vitreous	pink, white	
Plagioclase Feldspar	RF *2 good, 90	*6	2.7	scratches streak plate	vitreous	creamy-white, grey, colourless	
Muscovite Mica	RF *1 perfect (basal)	*2.5	2.7-3.1	white	pearly	colourless or pale yellow, green or brown	*flaky
Biotite Mica	RF *1 perfect (basal)	*2.5-3	2.7-3.1	white	pearly	brown/black	*flaky
Hornblende	RF *2 good, 60/120	*5-6	3.0-3.5	scratches streak plate	vitreous	black, dark green	prismatic crystals
Augite	RF *2 good, 90	*5-6	3.2-3.5	scratches streak plate	vitreous	greenish-black	prismatic crystals
Olivine	RF none/conchoidal	*6-7	3.2-4.3	scratches streak plate	vitreous	*olive green	
Chialtolite/Andalusite	RF poor 1/ uneven fracture	7.5	3.1-3.3	scratches streak plate	vitreous	pearly grey/pink	needle crystals with square x-sections, black centre
Garnet	RF none	*6.5-7.5	3.5-4.3	scratches streak plate	vitreous	red/brown	*12-sided crystals - each face rhomb shaped
Calcite	RF *3 good, not at 90, perfect rhombs	*3	2.71	white	vitreous	colourless, white, tints	*effervesces with 0.5M HCl, rhombic shape
Fluorite	RF *4 good, parallel to octahedron	*4	3.0-3.2	white	vitreous	colourless purple/green/yellow	fluoresces in uv light, cubic or octahedral crystals
Halite	RF 3 good, 90 cubic	*2.5	2.2	white	vitreous	colourless, white, often stained	*salty taste cubic crystals, often stained
Gypsum	RF 1 good (basal)	*1.5-2	2.3	white	silky, pearly	colourless, white, often stained	fibrous
Barite	RF 2 good, 90	*3-3.5	*4.5	white	vitreous, pearly	white, pink	bladed crystals
Chalcopyrite	RF poor/conchoidal	4	4.2	*black	metallic	bronze yellow	*tarnished to peacock colours
Pyrite	RF none/conchoidal	*6	5.0	*greenish-black	metallic	brass yellow	crystals often striated cubes
Galena	RF *3 good, 90 cubic	*2.5	*7.5	*lead grey	metallic	lead grey	cubic crystals
Haematite	RF poor/subconchoidal	*5.5-6.5	4.9-5.3	*cherry red	metallic-dull	red/black/steel grey	kidney shaped masses, fibrous

\* – Useful property for diagnosis RF – Common rock-forming mineral

This table should not be memorised.

Marks in the examinations will be awarded for description of the outcomes of tests on minerals and, on some occasions, identification from test results.