



ACCREDITED REFERENCE MATERIAL (ARM) : CATALOGUE

ACCREDITED TO ISO 17034 : General requirements for the competence of reference material producers

LIST OF SPECIFICATIONS-Version 22/07/2021

PULVERISED COAL LESS THAN 212um, < 60 MESH (DRY BASE RESULTS)

(Available in 250g units except ARM037 and ARM048 which is in 50g units,) (ARM042 onwards available in 200g units)

| PRODUCT | ISO ASH% | ISO VOLATILES (%) | CALORIFIC VALUE (MJ/Kg) | TOTAL SULPHUR (%) | PHOSPHORUS IN COAL (%) | TOTAL CARBON (%) | HYDROGEN (%) | NITROGEN (%) | AFT (REDUCING) DEFORMATION (°C) | AFT (REDUCING) SOFTENING (°C) | AFT (REDUCING) HEMISPHERE (°C) | AFT (REDUCING) FLOW (°C) |
|---------|----------|-------------------|-------------------------|-------------------|------------------------|------------------|--------------|--------------|---------------------------------|-------------------------------|--------------------------------|--------------------------|
| ARM 014 | - | - | - | 0.85 | 0.019 | - | - | - | 1325 | 1379 | 1415 | 1460 |
| ARM016 | - | - | - | 1.86 | 0.030 | - | - | - | 1284 | 1317 | 1346 | 1387 |
| ARM025 | - | - | - | 0.59 | 0.036 | - | - | - | - | - | - | - |
| ARM026 | - | - | - | 2.10 | - | - | - | - | - | - | - | - |
| ARM028 | - | - | - | 0.95 | - | - | - | - | - | - | - | - |
| ARM029 | - | - | - | 2.24 | - | - | - | - | - | - | - | - |
| ARM030 | - | - | - | 1.34 | - | - | - | - | - | - | - | - |
| ARM034 | - | - | - | 0.74 | - | - | - | - | - | - | - | - |
| ARM035 | 27.31 | 16.24 | 23.83 | 1.94 | 0.040 | 60.72 | 2.98 | 1.66 | 1350 | 1386 | 1440 | 1470 |

| PRODUCT | ISO ASH% | ISO VOLATILES (%) | CALORIFIC VALUE (MJ/Kg) | TOTAL SULPHUR (%) | PHOSPHORUS IN COAL (%) | TOTAL CARBON (%) | HYDROGEN (%) | NITROGEN (%) | AFT (REDUCING) DEFORMATION (°C) | AFT (REDUCING) SOFTENING (°C) | AFT (REDUCING) HEMISPHERE (°C) | AFT (REDUCING) FLOW (°C) |
|---------|----------|-------------------|-------------------------|-------------------|------------------------|------------------|--------------|--------------|---------------------------------|-------------------------------|--------------------------------|--------------------------|
| ARM036 | 13.18 | 10.03 | 29.70 | 2.23 | 0.091 | - | - | - | - | - | - | - |
| ARM037 | - | - | - | 4.74 | - | - | - | - | - | - | - | - |
| ARM038 | 15.05 | 23.53 | 28.06 | 0.76 | 0.079 | - | - | - | - | - | - | - |
| ARM039 | 14.65 | 17.89 | 30.24 | 1.67 | 0.040 | - | - | - | - | - | - | - |
| ARM040 | 10.39 | 35.37 | 29.24 | 1.13 | 0.009 | 71.84 | 4.63 | 1.41 | - | - | - | - |
| ARM041 | 29.41 | 18.41 | 22.50 | 1.65 | 0.043 | 58.79 | 2.99 | 1.50 | 12.93 | 1325 | 1380 | 1435 |
| ARM042 | 40.69 | 21.43 | 16.44 | 0.82 | 0.061 | 44.17 | 2.43 | 1.03 | - | - | - | - |
| ARM043 | 14.69 | 23.85 | 28.31 | 0.55 | 0.102 | 71.85 | 3.79 | 1.64 | - | - | - | - |
| ARM044 | 27.97 | 20.30 | 22.71 | 1.29 | 0.049 | 58.14 | 3.04 | 1.38 | - | - | - | - |
| ARM045 | 10.61 | 27.50 | 29.14 | 0.59 | 0.034 | 73.63 | 3.94 | 1.82 | - | - | - | - |
| ARM046 | 16.57 | 19.73 | 28.81 | 1.49 | 0.039 | 72.24 | 3.69 | 1.89 | 1340 | 1407 | 1442 | 1460 |
| ARM047 | 23.49 | 21.72 | 24.09 | 0.91 | 0.093 | 61.95 | 3.06 | 1.45 | - | - | - | - |
| ARM048 | 4.97 | 2.33 | 32.30 | 0.24 | 0.018 | 91.34 | 1.31 | 0.91 | - | - | - | - |
| ARM049 | 25.14 | 17.65 | 24.19 | 0.98 | 0.059 | 62.91 | 2.84 | 1.33 | - | - | - | - |
| ARM050 | 13.08 | 26.82 | 27.77 | 0.45 | 0.126 | 71.44 | 3.89 | 1.76 | - | - | - | - |
| ARM051 | 30.80 | 21.85 | 21.36 | 1.12 | 0.073 | 55.65 | 2.91 | 1.32 | 1355 | 1384 | 1426 | 1470 |
| ARM052 | 23.87 | 23.09 | 24.27 | 0.90 | 0.030 | - | - | - | - | - | - | - |
| ARM053 | 14.33 | 27.40 | 27.58 | 0.46 | 0.138 | 70.04 | 4.08 | 1.70 | - | - | - | - |

| PRODUCT | ISO ASH% | ISO VOLATILES (%) | CALORIFIC VALUE (MJ/Kg) | TOTAL SULPHUR (%) | PHOSPHORUS IN COAL (%) | TOTAL CARBON (%) | HYDROGEN (%) | NITROGEN (%) | AFT (REDUCING) DEFORMATION (°C) | AFT (REDUCING) SOFTENING (°C) | AFT (REDUCING) HEMISPHERE (°C) | AFT (REDUCING) FLOW (°C) |
|---------|----------|-------------------|-------------------------|-------------------|------------------------|------------------|--------------|--------------|---------------------------------|-------------------------------|--------------------------------|--------------------------|
| ARM054 | 22.87 | 25.25 | 24.90 | 0.95 | 0.035 | 63.34 | 3.53 | 1.47 | - | - | - | - |
| ARM055 | 18.94 | 23.96 | 25.56 | 0.55 | 0.099 | 66.43 | 3.57 | 1.58 | - | - | - | - |
| ARM056 | 33.56 | 19.23 | 20.39 | 1.00 | 0.047 | 53.61 | 2.98 | 1.22 | - | - | - | - |
| ARM057 | 30.27 | 19.26 | 22.18 | 1.65 | - | - | - | - | - | - | - | - |

| PRODUCT | ASTM ASH% | ASTM VOLATILES (%) | Chlorine |
|---------|-----------|--------------------|----------|
| ARM039 | 14.65 | 18.57 | - |
| ARM042 | 40.90 | 21.75 | - |
| ARM043 | 14.93 | 24.22 | - |
| ARM046 | 16.65 | 20.44 | - |
| ARM048 | 5.03 | 2.94 | - |
| ARM050 | 13.00 | 27.74 | - |
| ARM051 | 30.91 | 22.28 | - |
| ARM053 | 14.38 | - | - |

Accredited Benzoic acid, traceable to NIST

**Available in 1g and 0.5g weights
100 pills per bottle.**

CONTACT DETAILS

Mail: ravi@coalconcepts.co.za

Phone: +27 35 751 2446 Mobile: +27 83 6500 151

Unit 10, 81 Ceramic Curve , Richards Bay, KZN , South Africa