

# Da Vinci Smart Manufacturing

## BRD S04.01.01 Master Data Material Maintenance Furnace Raw Materials

Version	Created/Modified by	Description	Date
1.0	Sahana Badal	S04.01.01 First Draft	8/07/2025

1. Raw Material List Screen .....	3
2. Add Material Details.....	7
Material Information Tab .....	7
Material Specification Tab.....	10
3. Edit Material Details.....	12
Material Information Tab .....	13
Material Specification Tab.....	15
4. View Material .....	17
Material Information Tab .....	18
Material Specification Tab.....	19

## 1. Raw Material List Screen

This is designed to provide a comprehensive and user-friendly interface for managing Furnace Raw Material, including both active and inactive materials. **This data is populated from an external system and are loaded initially in inactive state.** Users can filter, search, and sort materials based on various parameters like Material Type and Material Status.

### **Header Section**

- **Title:** "MM : Furnace Raw Material"
- **Stats Section:** Total count of Active | Inactive
- **Search Bar:** Tooltip text: Search by Material ID / Material Name
- **Filters:**
  - Material Type -
    - Multi-select Dropdown
  - All Material Types related to Raw Materials
  - Status -
    - Multiselect Dropdown:
    - Values: Active | Inactive
  - Clear Filter - This will clear all the applied filters
  - All Filter drop downs should be sorted alphabetically / numerically

### **Material List Section**

Users can view the list of all Furnace Raw Materials, including both active and inactive materials. This data is populated from an external system and are loaded initially in inactive state. Users can filter, search, and sort materials based on various parameters like Material Type and Material Status. The table will have the following columns:

#### **Table Default Sorting : Latest Modified first**

- Material ID:**
  - **Material ID**
  - Sorting: Yes
  - Frozen - Yes
- Material Name:**
  - **Material Name corresponding to the Material ID**
  - Sorting: Yes
  - Frozen: No
- Material Type:**
  - Material Type, the material ID belongs to
  - Sorting: Yes
  - Frozen: No
- Created At:**
  - **Date Material was created as per ERP system**

- Sorting: Yes
  - Frozen: No
- Created By**
  - Auto-populated as “System”
  - Sorting: Yes
  - Frozen: No
- Modified At**
  - Last record modified Date and time
  - Sorting: Yes
  - Frozen – No
- Modified By**
  - User ID | First Name Last Name of user who last modified the record
  - Sorting: Yes
  - Frozen – No
- Status:** Indicates the status of the record (Draft, New, Linked, Rejected).
  - Active** –Material that are activated in the system.
  - Inactive** – Material imported from the ERP are initially marked as inactive or have been deactivated within the system.
  - Sorting: Yes
  - Frozen: No

**Note:** Horizontal scroll is required to be able to navigate through all columns and visualize all data but always respecting the frozen columns.

- **Action Buttons:** Depending on the status, allows users to edit or view the record. Only users with Create/Edit permissions on the module can activate, edit, or deactivate materials.
  - Active:**
    - View – Record details can be viewed in non-editable mode
    - Edit - Details can be edited in the Material Information and Specification tab.
    - Deactivate - Users can deactivate an active material, which moves it to an inactive state. Deactivate the material after a confirmation message
      - “Do you want to deactivate this material “MAT ID”?”
  - Inactive: Material Information tab details have not been saved**
    - View – Record details can be viewed in non-editable mode
    - Add Details – Additional details can be included in the Material Information and Specification tab.
  - Inactive: Material Information tab details have been saved**
    - View – Record details can be viewed in non-editable mode
    - Edit - Details can be edited in the Material Information and Specification tab.
    - Activate - Users with the appropriate permissions can activate an inactive material by adding additional information and specifying the material’s elemental specifications. Activate the material after a confirmation message

- “Do you want to activate this material “MAT ID”?”
- **Pagination Controls:** Navigation buttons to browse through multiple pages of records, if applicable (for more than 10 records).
- Rows Per page : Default 10, Dropdown values: 10, 20, 30, 40, 50

**Export Function:** The export function must extract ALL the information of the columns available on list screen even they are not displayed.

Material ID	Material Name	Material Type	Created At	Created By	Modified At	Modified By	Status
MQ36_230	Gres Montgru	Gres Montgru	04/06/2025   06:27 AM	Sahana   Sahana Badal			Active
MB02_170	Charbon bois Bosnie	charbon de bois bosnie	04/06/2025   06:27 AM	Sahana   Sahana Badal	04/06/2025   06:27 AM	Sahana   Sahana Badal	Active
MQ48_180	Mina Sonia 30/150	Mina Sonia 30/150	04/06/2025   06:27 AM	Sahana   Sahana Badal	04/06/2025   06:27 AM	Sahana   Sahana Badal	Inactive
MH20_217	HC Clean Carbon 2/12	HC Clean Carbon 2/12	04/06/2025   06:27 AM	Sahana   Sahana Badal	04/06/2025   06:27 AM	Sahana   Sahana Badal	Active
MQ45_194	Serrabal 30/120	Serrabal 30/120	04/06/2025   06:27 AM	Sahana   Sahana Badal			Inactive

MQ46_196	Serrabal 16/40	Serrabal 16/40	04/06/2025   06:27 AM	Sahana   Sahana Badal	04/06/2025   06:27 AM		Inactive
MQ17_312	Mina Sonia 30/120	Mina Sonia 30/120	04/06/2025   06:27 AM	Sahana   Sahana Badal			Inactive
MH49_314	Houille Australienne 1/12	Houille Australienne 1/12	04/06/2025   06:27 AM	Sahana   Sahana Badal			Inactive
MQ30_178	Gres Fulchiron	GrEs Fulchiron	04/06/2025   06:27 AM	Sahana   Sahana Badal			Inactive

**Exported File Name: “FurnaceRawMaterials\_DDMMYY”**

**Customize Columns:** Users can enable or disable all columns based on their preference. Only the enabled columns will be visible in the list. Columns marked as ‘frozen’ will be enabled by default and cannot be modified.

The screenshot shows a list of furnace raw materials with various filters and search options. On the right side, there is a 'Customize Columns' panel where users can toggle the visibility of different data fields.

Material ID	Material Name	Material Type	Date Created	Status
MQ47_181	Mangieu 10/50	Quartz	10/10/2024	Active
MQ08_177	Boudeau 10/60	Quartz	10/10/2024	Inactive
MQ17_312	Mina Sonia 30/120	Quartz	10/10/2024	Inactive
MB07_172	Charbon bois Indo	Charcoal	10/10/2024	Inactive
MH36_315	Houille Colombie 1/12	Coal	10/10/2024	Active
MH49_314	Houille Australienne 1/12	Coal	10/10/2024	Active
MH01_174	Colombie 4/12 mm	Coal	10/10/2024	Active
MB02_216	Cdb Carbonex	Charcoal	10/10/2024	Active
MH32_176	Colombie 2/8 mm	Coal	10/10/2024	Active
MC04_173	Coke petrole Veba	Petroleum Coke	10/10/2024	Inactive

Showing 10 of 80

The screenshot shows a list of furnace raw materials. The table has columns for Material ID, Material Name, Material Type, Date Created, and Status. The status column uses color-coded icons: green for Active and red for Inactive. A search bar and filter buttons are at the top. On the right, there are two filter panels: one for Material Type (with a dropdown menu) and one for Status (with a dropdown menu). The status panel includes a 'Select' button and a 'Clear' button.

Material ID	Material Name	Material Type	Date Created	Status
MQ47_181	Mangieu 10/50	Quartz	10/10/2024	Active
MQ05_177	Boudeau 10/60	Quartz	10/10/2024	Inactive
MQ17_312	Mina Sonia 30/120	Quartz	10/10/2024	Inactive
MB07_172	Charbon bois Indo	Charcoal	10/10/2024	Inactive
MH36_315	Houille Colombie 1/12	Coal	10/10/2024	Active
MH49_314	Houille Australienne 1/12	Coal	10/10/2024	Active
MH01_174	Colombie 4/12 mm	Coal	10/10/2024	Active
MB02_216	CdB Carbonex	Charcoal	10/10/2024	Active
MH32_176	Colombie 2/8 mm	Coal	10/10/2024	Active
MC04_173	Coke petrole Veba	Petroleum Coke	10/10/2024	Inactive

Showing 10 of 80

## 2. Add Material Details

This screen will allow users to input and manage records, organised into two Tabs: Material Information and Material Specification. Mandatory fields will be marked with an asterisk (\*). Below is a detailed layout incorporating the requirements.

**Header:** Back Icon | MQ36\_230 | Gres Montgru (Material ID | Material Name)

### Material Information Tab

- **Basic Information (Read-only; fetched from external ERP system):**
- Material ID = (Concatenation of ERP ID and Ops ID)
- Material Name
- ERP Commercial Material ID
- ERP Commercial Material Name
- ERP ACC Material ID
- ERP ACC Material Name
- Ops Technical Material ID
- Material Type
- Status
- Date Created

- Material Description

**Additional Information** - These details are to be captured here, they are the following

- **Effective Date\***:

- User selects the date from a calendar selector. The system shall allow users to capture a set of values with an effective date, which can be in the past, present, or future.
- Mandatory - Yes
- Default value - Current date
- Field Type - Calendar picker
- Validation - No

- **Unit Weight\***

- User inputs the unit weight value
- Mandatory - Yes
- Default value - None
- Field Type - User input
- Validation - Numeric 2 decimal values. Max allowed 99,999,999.99
- Units - Kg

- **Actual Cost\***

- User inputs the value
- Mandatory - Yes
- Default value - None
- Field Type - User input
- Validation - Numeric 2 decimal values. Max allowed 99,999,999.99
- Units - USD (currency from Plant Config)

- **Addition Group**

- User inputs the value
- Mandatory - No
- Default value - None
- Field Type - User input
- Validation - Numeric 2 decimal values. Max allowed 99,999,999.99
- Units - \$ (currency from Plant Config)

- **Density**

- User inputs the value
- Mandatory - No
- Default value - None
- Field Type - User input
- Validation - Numeric 4 decimal values. Max allowed 99,999,999.9999
- Units - Depending on Unit System setup on Plant config (g/l metric system or lbm/ft^3)

- **Standard Cost\***

- User inputs the value
- Mandatory - Yes
- Default value - None
- Field Type - User input
- Validation - Numeric 2 decimal values. Max allowed 99,999,999.99

- Units - USD (currency from Plant Config)
- **CO2 Contributor**
  - User inputs the value
  - Mandatory - No
  - Default value - None
  - Field Type - User input
  - Validation - Numeric 2 decimal values. 8 integers + decimal point + 2 decimals, 0 allowed, space not allowed
- **kWh Melting**
  - User inputs the value
  - Mandatory - No
  - Default value - None
  - Field Type - User input
  - Validation - Numeric 2 decimal values. 8 integers + decimal point + 2 decimals, 0 allowed, space not allowed
  - Units - kWh/t

### Action Buttons

- **Save & Continue:**
  - Upon saving the details, the user is redirected to the **Material Specification** tab.
  - On the **list screen**:
    - Since the first tab's details have been entered,
    - An **Edit** option will appear in the **action menu** for the corresponding item.
    - Since Material Specification has default 0 values, User can now activate the material.
- **Cancel:** Cancels the current operation and returns to the list screen

Basic Information		Material Specification		
Material ID MQ30_178	Material Name Gres Fulchiron	ERP Commercial Material ID MQ30	ERP Commercial Material Name GRES MAISSE 40/I20 MM	ERP ACC Material ID MQ30
ERP ACC Material Name GRES MAISSE 40/I20 MM (FULCHIRON)	Ops Technical Material ID 178	Material Type Quartz	Status Inactive	Date Created 09/06/2024
Material Description GrEs Fulchiron				
Additional Information				
Effective Date* 14/07/2025	Unit Weight* Enter Value t	Actual Cost* Enter Value USD	Addition Group Enter Value	Density Enter Value g/cm³
Standard Cost* Enter Value USD	CO2 Contributor Enter Value	kWh Melting Enter Value kWh/t		

Cancel Save & Continue

## Material Specification Tab

- The Material Specification tab is not dependent on the completion or saving of the Material Information tab.
- Users can navigate to and save data under the Material Specification tab without saving the Material Information tab.
- The material cannot be activated unless all mandatory fields in the Material Information tab are filled in and saved successfully.
- Users can edit material specifications, including chemistry, physical and size specifications.
- Under this section “Low”, “Aim” and “High” values for various elements are captured. The elements are mapped to a particular material type.
- In Edit mode update of element values inserts a new set of records with the date.
- For any given date only one set can exist, the older values will be overwritten for an existing date. Thus, storing historical data will help generate reports with appropriate data for all dates.
- Historical data can be viewed by downloading the Excel file using the download option in View mode
- The list of elements for Chemical and Physical can be seen in the design provided.
- Material Specification tab is independent from Material Information tab and available to be saved at any point of time.
- **Each Chemistry element will have the following :** Fe, Si, C, Mn, Cr, Ni, Mo, V, Ti, Al, W, Nb, Co, Zr, B, P, S, Cu, Sn, Pb, Mg, Ca, Zn, As, Sb, Se, Te, Re, Ta, Hf, Sc, Y, La, Ce, Nd, Pr, Sm, Gd, Dy, Er, Be, Li, Na, K, Sr, Ga, Ge, Cd, In, Hg, Pt, Au
  - Low -
    - Editable and pre-populated with the existing value.
    - Default value - 0
    - Mandatory: No
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be lower than Aim and High
  - Aim
    - Editable and pre-populated with the existing value.
    - Default value - 0
    - Mandatory: No
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be higher than Low and lower than High
  - High
    - Editable and pre-populated with the existing value.
    - Default value - 0
    - Mandatory: No
    - Field Validation -

- only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
  - It has to be higher than Low and Aim
- **Each Physical element will have the following:** Ash, Moisture, Volatiles.
  - Low -
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be lower than Aim and High
  - Aim
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be higher than Low and lower than High
  - High
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be higher than Low and Aim
- **For Size specifications, User captures**
  - **Low**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Validation - No
  - **Below Tolerance %**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Validation - only integers, max value 100%
  - **High**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - **Validation - High has to be more than Low. PAN is considered the lowest value.**
  - **Above Tolerance**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Validation - only integers, max value 100%
- **Action Buttons**

- **Save**
  - Upon saving the details, the user is redirected to the **List** page.
  - On the **list screen**:
    - Since both tab's details have been entered,
    - An **Edit** option will appear in the **action menu** for the corresponding item.
    - User can now activate the material
- **Cancel:** Cancels the current operation and returns to the list screen

**Material Information**

Elements (in %)	Low	Aim	High
Al	0.0000	0.0000	0.0000
As	0.0000	0.0000	0.0000
Au	0.0000	0.0000	0.0000
Be	0.0000	0.0000	0.0000
B	0.0000	0.0000	0.0000
Ca	0.0000	0.0000	0.0000
Cd	0.0000	0.0000	0.0000
Ce	0.0000	0.0000	0.0000
Co	0.0000	0.0000	0.0000

  

Elements (in %)	Low	Aim	High
Mo	0.0000	0.0000	0.0000
Na	0.0000	0.0000	0.0000
Nb	0.0000	0.0000	0.0000
Nd	0.0000	0.0000	0.0000
Ni	0.0000	0.0000	0.0000
Pb	0.0000	0.0000	0.0000
Pr	0.0000	0.0000	0.0000
Pt	0.0000	0.0000	0.0000
P	0.0000	0.0000	0.0000

**Material Specification**

Elements (in %)	Low	Aim	High
Mn	0.0000	0.0000	0.0000
Zr	0.0000	0.0000	0.0000

  

**Physical Elements**

Elements (in %)	Low	Aim	High
Ash	0.0000	0.0000	0.0000
Moisture	0.0000	0.0000	0.0000
Volatiles	0.0000	0.0000	0.0000

  

**Size Specifications**

Low	Below Tolerance%	High	Above Tolerance%
Select	0.0000	Select	0.0000

### 3. Edit Material Details

- This screen will allow users to input and manage records, organized into two Tabs: Material Information and Material Specification. Mandatory fields will be

marked with an asterisk (\*). Below is a detailed layout incorporating the requirements.

- **Header:** Back Icon | **MQ30\_178 | Gres Fulchiron** (Material ID | Material Name)

Material ID	Material Name	Material Type	Date Created	Status	
MQ47_181	Mangieu 10/50	PSSI 4503 B Alu	10/10/2024	Active	
MQ05_177	Boudeau 10/60	Quartz	10/10/2024	Inactive	
MQ17_312	Mina Sonia 30/120	Quartz	10/10/2024	Inactive	
MB07_172	Charbon bois Indo	Charcoal	10/10/2024	Inactive	
MH36_315	Houille Colombie 1/12	Coal	10/10/2024	Active	
MH49_314	Houille Australienne 1/12	Coal	10/10/2024	Active	
MH01_174	Colombie 4/12 mm	Coal	10/10/2024	Active	
MB02_216	CdB Carbonex	Charcoal	10/10/2024	Active	
MH32_176	Colombie 2/8 mm	Coal	10/10/2024	Active	
MCO4_173	Coke pétrole Veba	Petroleum Coke	10/10/2024	Inactive	

## Material Information Tab

Basic Information (Read-only; fetched from external ERP system):

- Material ID = (Concatenation of ERP ID and Ops ID)
- Material Name
- ERP Commercial Material ID
- ERP Commercial Material Name
- ERP ACC Material ID
- ERP ACC Material Name
- Ops Technical Material ID
- Material Type
- Status
- Date Created
- Material Description

## Additional Information -

- When viewed in edit mode, only the current values of fields (based on effective date) will be displayed. If a recently updated value is older than the current value, it will be saved. However, these values will not be displayed in edit mode but can be viewed by downloading the Excel history.
- Only one value can exist for a given effective date. In Edit mode, if a record with the same effective date already exists in the system, the user will receive a warning and be asked if they want to proceed and overwrite the existing details.
- Historical and future data can be viewed by downloading the Excel file using the download option in View mode.

- **Effective Date\*:**
  - Editable and pre-populated with the existing value.
  - Default value - Current date
  - Mandatory: Yes
- **Unit Weight\***
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Actual Cost\***
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **Addition Group**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: No
- **Density**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: No
- **Standard Cost\***
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: Yes
- **CO2 Contributor**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: No
- **kWh Melting**
  - Editable and pre-populated with the existing value.
  - Default value - None
  - Mandatory: No
- 
- **Action Buttons**
  - **Save & Continue:**
    - Upon saving the details, the user is redirected to the **Material Specification** tab.
    - On the **list screen**:
      - An **Edit** option will appear in the **action menu** for the corresponding item.
      - Since Material Specification has default 0 values, User can now activate the material.
  - **Cancel:** Cancels the current operation and returns to the list screen

The screenshot shows the DaVinci software interface with the title "MQ47\_181 | Mangieu 10/50". The main area is divided into two tabs: "Material Information" (selected) and "Material Specification".

**Material Information Tab:**

- Basic Information:**

Material ID	Material Name	ERP Commercial Material ID	ERP Commercial Material Name	ERP ACC Material ID
MQ47_181	Mangieu 10/50	MQ47	GALETS LOT STDENIS 20/80 MM	MQ47
- Material Description:** Mangieu 10/50
- Additional Information:**

Effective Date*	18.08.24								
Unit Weight*	50.00 t	Actual Cost*	12.00 €	Addition Group	12.00	Density	12.00 g/cm³	Standard Cost*	12.00 €

**Material Specification Tab:**

Buttons at the bottom right: "Cancel" and "Save & Continue".

## Material Specification Tab

- Users can edit material specifications, including chemistry, physical and size specifications.
- Under this section “Low”, “Aim” and “High” values for various elements are captured. The elements are mapped to a particular material type.
- In Edit mode update of element values inserts a new set of records with the date.
- For any given date only one set can exist, the older values will be overwritten for an existing date. Thus, storing historical data will help generate reports with appropriate data for all dates.
- Historical data can be viewed by downloading the Excel file using the download option in View mode
- The list of elements for Chemical and Physical can be seen in the design provided.
- **Each Chemistry element will have the following**
  - Low -
    - Editable and pre-populated with the existing value.
    - Default value - 0
    - Mandatory: No
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be lower than Aim and High
  - Aim
    - Editable and pre-populated with the existing value.
    - Default value - 0
    - Mandatory: No
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point

- It has to be higher than Low and lower than High
- **High**
  - Editable and pre-populated with the existing value.
  - Default value - 0
  - Mandatory: No
  - Field Validation -
    - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
    - It has to be higher than Low and Aim
- **Each Physical element will have the following**
  - **Low** -
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be lower than Aim and High
  - **Aim**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be higher than Low and lower than High
  - **High**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Default - 0
    - Field Validation -
      - only integers, Max 100/ Min 0, 3 integers and Four places after decimal point
      - It has to be higher than Low and Aim
- **For Size specifications - User captures**
  - **Low**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Validation - No
  - **Below Tolerance %**
    - Editable and pre-populated with the existing value.
    - Mandatory - No
    - Validation - only integers, max value 100%
  - **High**
    - Editable and pre-populated with the existing value.
    - Mandatory - No

- Validation - High has to be more than Low. PAN is considered the lowest value.
- **Above Tolerance**
  - Editable and pre-populated with the existing value.
  - Mandatory - No
  - Validation - only integers, max value 100%
- **Action Buttons**
  - **Save**
    - Upon saving the details, the user is redirected to the **List** page.
    - On the **list screen**:
      - Since both tab's details have been entered,
      - An **Edit** option will appear in the **action menu** for the corresponding item.
      - User can now activate the material
  - **Cancel:** Cancels the current operation and returns to the list screen

Elements (in %)	Low	Aim	High
Al	0.0000	0.0000	0.0000
As	0.0000	0.0000	0.0000
Au	0.0000	0.0000	0.0000
Be	0.0000	0.0000	0.0000
B	0.0000	0.0000	0.0000
Ca	0.0000	0.0000	0.0000
Cd	0.0000	0.0000	0.0000
Ce	0.0000	0.0000	0.0000
Co	0.0000	0.0000	0.0000
Mo	0.0000	0.0000	0.0000
Na	0.0000	0.0000	0.0000
Nb	0.0000	0.0000	0.0000
Nd	0.0000	0.0000	0.0000
Ni	0.0000	0.0000	0.0000
Pb	0.0000	0.0000	0.0000
Pr	0.0000	0.0000	0.0000
Pt	0.0000	0.0000	0.0000
P	0.0000	0.0000	0.0000

## 4. View Material

This screen will allow users to input and manage records, organised into two Tabs: Material Information and Material Specification. Mandatory fields will be marked with an asterisk (\*). Below is a detailed layout incorporating the requirements.

**Header:** Back Icon | MQ36\_230 | Gres Montgru ((Material ID | Material Name) | **Edit**

**Icon:** Allows users to switch from view mode to edit mode to update the record.

MM : Furnace Raw Material					Active: 5	Inactive: 35
Material ID	Material Name	Material Type	Date Created	Status		
MQ47_181	Mangieu 10/50	PSSI 4503 B Alu	10/10/2024	Active		
MQ05_177	Boudeau 10/60	Quartz	10/10/2024	Inactive		
MQ17_312	Mina Sonia 30/l20	Quartz	10/10/2024	Inactive		
MB07_172	Charbon bois Indo	Charcoal	10/10/2024	Inactive		
MH36_315	Houille Colombie 1/12	Coal	10/10/2024	Active		
MH49_314	Houille Australienne 1/12	Coal	10/10/2024	Active		
MH01_174	Colombie 4/12 mm	Coal	10/10/2024	Active		
MB02_216	CdB Carbonex	Charcoal	10/10/2024	Active		
MH32_176	Colombie 2/8 mm	Coal	10/10/2024	Active		
MCO4_173	Coke petrole Veba	Petroleum Coke	10/10/2024	Inactive		

Showing 10 of 80 Rows Per Page: 10

## Material Information Tab

### Basic Information (Read-only; fetched from external ERP system):

- Material ID = (Concatenation of ERP ID and Ops ID)
- Material Name
- ERP Commercial Material ID
- ERP Commercial Material Name
- ERP ACC Material ID
- ERP ACC Material Name
- Ops Technical Material ID
- Material Type
- Status
- Date Created
- Material Description

**Additional Information** - These details are to be captured here, they are the following

- **Effective Date:**
  - **Export Icon:**
    - Historical and future data can be viewed by downloading the CSV file using the download option.
    - The tooltip should read “Download CSV”.
    - Downloads the record in CSV format.
    - The file must include the following headers and display the values as the following example:
    - Exported File Name:  
**“FurnaceRawMaterials\_Additional\_Information\_DDMMYY”**

Effective Date	Material ID	Material Name	Material Type	Unit Weight	Actual Cost	Addition Group	Standard Cost	CO2 Contributor	kWh Melting	Created By	Modified By	Created At	Modified At
14/07/2025	MB_06_17	Woo Bois	Wood	1.00t	1.00 USD	1.00g/cm <sup>3</sup>	1.00 USD	1t	1.00k Wh	sbadal   Badal	sbadal   Badal	13/07/2025 PM	13/07/2025 PM
18/07/2025	MB_06_17	Woo Bois	Wood	1.00t	1.00 USD	1.00g/cm <sup>3</sup>	1.00 USD	1t	1.00k Wh	sbadal   Badal	sbadal   Badal	13/07/2025 PM	13/07/2025 PM

- **Unit Weight**
- **Actual Cost**
- **Addition Group**
- **Density**
- **Standard Cost**
- **CO2 Contributor**
- **kWh Melting**

The screenshot shows the DaVinci software interface for managing material specifications. The top navigation bar includes the VIRTUES logo, the DaVinci logo, and a user dropdown for 'Sahana Badal'. The main content area is titled 'MQ36\_230 | Gres Montgru'.

The interface is divided into several sections:

- Material Information**: Contains fields for Material ID (MQ36\_230), Material Name (Gres Montgru), ERP Commercial Material ID (MQ36), ERP Commercial Material Name (GRES DE MONTGRU ST HILAIRE 40/150MM), ERP ACC Material ID (MQ36), ERP ACC Material Name (GRES DE MONTGRU ST HILAIRE 40/150MM), Ops Technical Material ID (230), Material Type (Quartz), Status (Active), and Date Created (09/06/2024).
- Basic Information**: Shows Material Description (Gres Montgru).
- Additional Information**: Displays Effective Date (14/07/2025), Unit Weight (--), Actual Cost (--), Addition Group (--), Density (--), Standard Cost (--), CO2 Contributor (kWh Melting), and kWh Melting (--).
- Material Specification**: This tab is currently active, indicated by a blue underline.

## Material Specification Tab

Chemistry, Physical and size specification of various elements will be available in read only mode.

## Each Chemistry element will have the following

- Low

- Aim
- High

**Each Physical element will have the following**

- Low
- Aim
- High

### For Size specifications

- Low
- Below Tolerance %
- High
- Above Tolerance

### Export Specification

- Historical data can be viewed by downloading the Excel file using the download option.
- The tooltip should read “Download CSV”.
- Downloads the record in CSV format.
- The file must include the following headers and display the values as the following example:
- Exported File Name: **“FurnaceRawMaterial\_MaterialSpecification\_DDMMYY”**

Element (in %)	Element Group	Low	Aim	High	Size	Size	Above Tolerance	Below Tolerance	Created At	Modified At	Plant Material ID	Plant Material ID	Created By	Modified By
Al	CHE	124							09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda	
As	CHE	000							09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda	
Au	CHE	000							09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda	
Be	CHE	000							09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda	







Y	CHE	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Zn	CHE	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Zr	CHE	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Ash	PHY	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Moisture	PHY	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Volatile	PHY	000			09/07/2025   07:07 AM	09/07/2025   07:07 AM	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda
Size Change	Sizes			0	2025-07-09T12:07:38.575613Z	2025-07-09T12:07:38.575619Z	6V_M Q36_230	sdevarakonda 6   Sireesha V Devarakonda	sdevarakonda   Sireesha Devarakonda

The screenshot shows the DaVinci software interface for managing material specifications. It includes a sidebar with various icons, a header with user information (SB Sahana Badal), and two main tabs: "Material Information" and "Material Specification". Under "Material Information", there is a section titled "Chemistry Elements" which contains two tables for "Elements (in %)". The first table covers Al, As, Au, Be, B, Ca, Cd, and Ce. The second table covers Mo, Na, Nb, Nd, Ni, Pb, Pr, and Pt. Each table has columns for Low, Aim, and High values.

Elements (in %)	Low	Aim	High	Elements (in %)	Low	Aim	High
Al	1.0000	2.0000	4.0000	Mo	0.0000	0.0000	0.0000
As	0.0000	0.0000	0.0000	Na	0.0000	0.0000	0.0000
Au	0.0000	0.0000	0.0000	Nb	0.0000	0.0000	0.0000
Be	0.0000	0.0000	0.0000	Nd	0.0000	0.0000	0.0000
B	0.0000	0.0000	0.0000	Ni	0.0000	0.0000	0.0000
Ca	0.0000	0.0000	0.0000	Pb	0.0000	0.0000	0.0000
Cd	0.0000	0.0000	0.0000	Pr	0.0000	0.0000	0.0000
Ce	0.0000	0.0000	0.0000	Pt	0.0000	0.0000	0.0000

### View Change History

This button opens a modal or section showing a chronological list of all changes made to the record, including:

- Timestamp of change
- Field(s) modified
- Previous and updated values
- Name of the user who made the change
- **Export Icon - Downloads the records in CSV format, the tooltip should read “Download CSV”.**
- Export Filename - “FurnaceRawMaterials\_ChangeHistory\_DDMMYY”

The screenshot shows the DaVinci software interface with the following details:

**SPECIFICATION CHANGE HISTORY**

Date	Username	Element	Old			New		
			Low	Aim	High	Low	Aim	High
05/01/2025 09:00 AM	JSmithOperator	Al	0.0000	0.0000	0.0000	1.9000	2.0000	2.4500
04/01/2025 09:00 AM	superadmin	Ca	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000
02/01/2025 07:00 AM		AI	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
01/01/2025 09:00 AM	superadmin	Coarse Particles (>45um)	0.0000	0.0000	0.0000	0.0000	0.0000	2.4500
		Cl	0.0000	0.0000	0.0000	0.0000	1.0000	0.0000