



# User Guide

Search by Material Properties/Automotive Specification



# **LG Chem On User Guide**

## **- Search by Material Properties/Automotive Specification**

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1. Search by Material Properties
2. Search by Automotive Specification

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# 1. Search by Material Properties

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- 1.2. Screen Components
- 1.3. Search by Product Conditions
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- 1.5. Search Results
- 1.6. Key Features

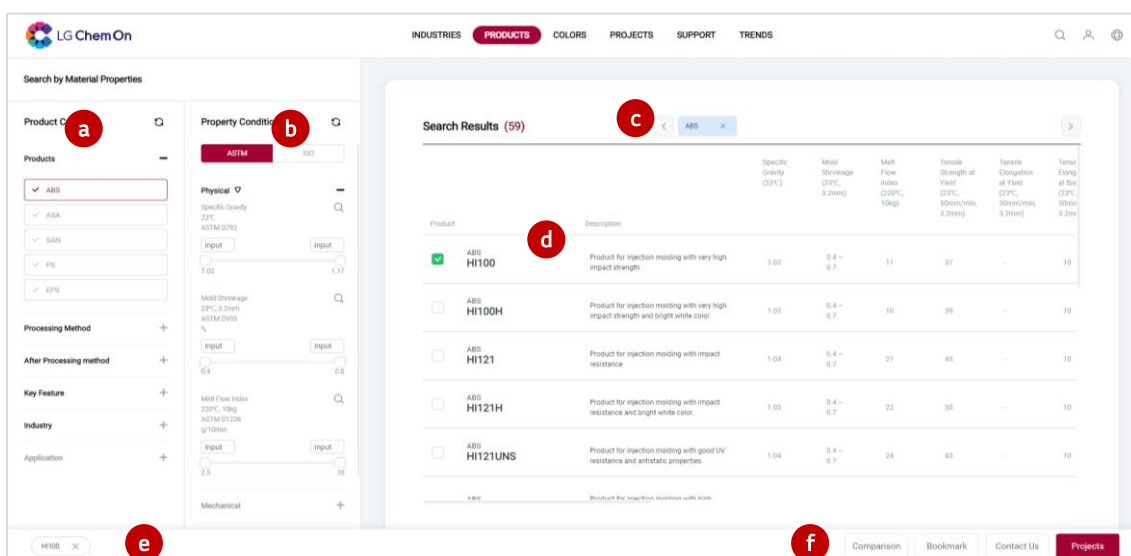
# 1. Search by Material Properties

## 1.1. Overview

To help you find LG chemical products that meet your requirements, we provide you with the "Search by Material Properties" feature so you can easily find products you want by selecting product conditions and entering information.

To see the exact difference between products in the search results, the "Compare Product Properties" feature allows you to compare detailed values and store the preferred products in the bookmark list to help you request samples or projects.

## 1.2. Screen Components



- Product Condition:**  
Provides categories to select items. Categories include Products, Processing Method, After Processing Method, Key Feature, Industry, and Application.
- Property Condition:**  
Find and use four properties (physical/mechanical/thermal/optical) as search criteria.
- Selected Condition:**  
Keywords selected from the product conditions can be registered and used to indicate the search criteria used for the search.
- Search Results:**  
The Results screen provides the results of the search performed with the previous selected search criteria. You can also see product descriptions and property information here.
- Selected Products:**  
List of products the customer selected from the search results by clicking the checkbox. Up to five products can be selected.
- Additional Features:**  
You can compare products, create bookmarks, send inquiries, and request samples and projects for the selected products.

### 1.3. Search by Product Conditions

Select the product's basic conditions. Select the customer's desired product line, processing/after processing methods, key features, industries, and applications to find the products that meet the customer's needs.

**Search by Material Properties**

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**Product Condition** a ↺

---

**Products** b -

✓ ABS

✓ ASA

✓ SAN

✓ PS

✓ EPS

---

**Processing Method** c +

---

**After Processing method** d +

---

**Key Feature** e +

---

**Industry** f +

---

**Application** g +

- a. **Reset button:**  
Reset all selected product conditions.
- b. **Products:**  
Choose from ABS, ASA, SAN, PS, and EPS.  
※ Restrictions apply to multiple selection of products.  
※ To select items from the c, d, and e categories, select the product group(s) first.
- c. **Processing Method:**  
Can be selected from the processing method list.
- d. **After Processing Method:**  
Can be selected from the after processing method list.
- e. **Key Features:**  
Can be selected from the key features list.
- f. **Industry:**  
Industry selected for the customer's project. When the industry is selected, product groups are recommended accordingly.  
※ To select items from the application category, select the industry first.
- g. **Application:**  
Can be selected from the application list for the selected industry.

\*\* To select property conditions, select at least one product or industry first.

#### 1.3.1 Multiple Selection Restrictions

- a. ABS and ASA can be selected at the same time.
- b. SAN and PS can be selected at the same time.
- c. **EPS:**  
EPS can only be selected by itself because it contains property data (KS).  
※ If you select a product and then a product that cannot be selected at the same time, the previously selected product will automatically be unselected. (Example: If you select ABS and then SAN, ABS will be unselected.)

#### 1.3.2 Products

If you select the product first, other categories, such as Processing Method, After Processing Method, and Key Features, become unlocked, and you can get recommendations for LG Chem products with the features you want in the search results.

### 1.3.3 Industry

If you select an industry first, you can search products by property without selecting a product line.

Select an industry to unlock the Application category. Customers can select an application and get recommendations for the LG Chem products that are most commonly used in the industry in the search results.

You can also get recommendations for LG Chem products with the desired product features by using the Processing Method, After Processing Method, and Key Features categories that are unlocked after selecting the industry.

### 1.3.4 Processing Method/After Processing Method

The Processing Method and After Processing Method categories are unlocked only after you select a product group first. Each category offers methods that are suitable for the selected product group.

※ Example 1: When ABS is selected, Injection Molding and Extrusion can be selected as the processing method.

※ Example 2: When EPS is selected, only Expansion Molding can be selected as the processing method.

### 1.3.4 Key Features

To unlock Key Features, select a product group first. This category offers the key features of the selected product group, allowing you to select the features you want.

※ Example 1: When SAN is selected, High Transparency, High Strength, Chemical Resistance, Blue Tint, and Colorability can be selected.

※ Example 2: When EPS is selected, Compression Strength, Curve Destruction Weight, Pre-expansion Density, and Inflammability can be selected.

### 1.3.5 Application

To unlock Application, select an industry first. This category offers the main applications of LG Chem products in the selected industry. By selecting the application you are interested in, you can get recommendations for LG Chem products in the search results.

## 1.4. Search by Property Conditions

You can perform an advanced search based on the results of the search performed with selected product conditions as well as product properties.

Depending on the product group, you can select ASTM, ISO, or KS and enter numbers in the fields to perform a more accurate product search.

- Reset button:**  
Reset all property conditions.
- Standards:**  
This category offers standards that are applicable for each product group. You can click and change the standards.  
  - ※ ABS/ASA - ASTM and ISO
  - ※ SAN/PS - ASTM
  - ※ EPS - KS
- Property Type:**  
Classifies properties into Physical Properties, Mechanical Properties, Thermal Properties, and Optical Properties to help you find the required property values more easily.
- Properties:**  
Shows properties, metrics, and units.
- Property values:**  
You can find a product with the desired performance by entering the minimum/maximum property values for the recommended products.
- Search:**  
Click the magnifier icon to view search results for the property values you entered.  
  - ※ If you search products by property, the products are sorted by property values as shown in the screen below, making it easy to see the results at a glance.

Search Results (59) ABS x

Product	Description	Specific Gravity (23°C)	Mold Shrinkage (23°C)	Melt Flow Index (220°C, 10kg)
<input type="checkbox"/> ABS HI100	Product for injection molding with very high impact strength.	1.02	0.4 – 0.7	11

The properties of LG Chem products are periodically measured to maintain high quality and performance. The measured value of all items are provided with the latest information by updating the most recent measured values.

## 1.5. Search Results

You can view product names, descriptions, and property values retrieved based on the previously selected/entered search criteria and compare them as necessary.

Search Results (55) < ABS x a >

Product	Description	Specific Gravity (23°C)	Mold Shrinkage (23°C, 3.2mm)	Melt Flow Index (220°C, 10kg)	Tensile Strength at Yield (23°C, 50mm/min, 3.2mm)	Tensile Elongation at Yield (23°C, 50mm/min, 3.2mm)	Tensile Elong at Bre (23°C, 50mm, 3.2mm)
<input type="checkbox"/> ABS HI100	Product for injection molding with very high impact strength.	1.02	0.4 ~ 0.7	11	37	-	10
<input type="checkbox"/> ABS HI100H	Product for injection molding with very high impact strength and bright white color.	1.02	0.4 ~ 0.7	10	39	-	10
<input type="checkbox"/> ABS HI121	Product for injection molding with impact resistance.	1.04	0.4 ~ 0.7	21	45	-	10
<input type="checkbox"/> ABS HI121H	Product for injection molding with impact resistance and bright white color.	1.05	0.4 ~ 0.7	22	50	-	10
<input type="checkbox"/> ABS HI121UNS	Product for injection molding with good UV resistance and antistatic properties.	1.04	0.4 ~ 0.7	24	43	-	10
<input type="checkbox"/> ABS AP163	Product for injection molding with high antistatic property (surface resistance level	1.06	0.4 ~	30	41	-	10

- a. Selected product conditions:  
Selected conditions are registered and can be used to indicate the search criteria used for the search.
- b. Checkbox:  
You can select products to compare and create bookmarks, send inquiries, and request samples and projects for the selected products.
- c. Product:  
You can see the name of the products and their product sub-groups in the search results.
- d. Description:  
Shows the basic description of the product.
- e. Product Properties:  
Shows the product's property information. Scroll left and right to find the property you want.
- f. Highlighted property:  
The property information used for the search is highlighted to help you easily see the results at a glance.

## 1.6. Key Features

After selecting products from the search results, you can easily compare products, create bookmarks, send inquiries, and request samples and projects based on the progress.

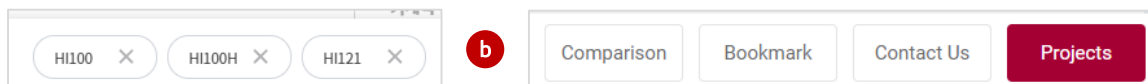
### 1.6.1 Selecting a Product

Search Results (55) ABS

Product	Description	Specific Gravity (23°C)	Mold Shrinkage (23°C, 3.2mm)	Melt Flow Index (220°C, 10kg)	Tensile Strength at Yield (23°C, 50mm/min, 3.2mm)	Tensile Elongation at Yield (23°C, 50mm/min, 3.2mm)	Tensile Elong at Bre (23°C, 50mm, 3.2mm)
<input checked="" type="checkbox"/> ABS HI100	Product for injection molding with very high impact strength.	1.02	0.4 – 0.7	11	37	-	10
<input checked="" type="checkbox"/> ABS HI100H <b>a</b>	Product for injection molding with very high impact strength and bright white color.	1.02	0.4 – 0.7	10	39	-	10
<input checked="" type="checkbox"/> ABS HI121	Product for injection molding with impact resistance.	1.04	0.4 – 0.7	21	45	-	10
<input type="checkbox"/> ABS HI121H	Product for injection molding with impact resistance and bright white color.	1.05	0.4 – 0.7	22	50	-	10
<input type="checkbox"/> ABS HI121UNS	Product for injection molding with good UV resistance and antistatic properties.	1.04	0.4 – 0.7	24	43	-	10
<input type="checkbox"/> ABS AD160	Product for injection molding with high antistatic property (surface resistance level)	1.06	0.4 –	20	41	-	10

**a.** Selection checkbox:

Checkbox for selecting a product. When the checkbox for a product is selected, the product is registered in the selected product list at the bottom of the screen, and additional features will be activated.

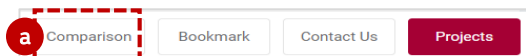


**b.** Selection status:

If a product is selected from the search results, the product is registered in the selected product list at the bottom left of the screen, and buttons for additional features at the bottom right corner will be activated.

### 1.6.2 Product Comparison

This feature allows you to select products from the list of recommended products in the search results and compare their properties.



- a. **Product Comparison Button:**  
This button is activated when products are selected from the search results. Clicking the button launches a product comparison pop-up to provide the property information of the selected products.

b Compare Product Properties ×

ASTM ISO

Property	<span style="font-weight: bold; color: #000080;">d</span> HI121UNS <span style="float: right; font-size: 0.8em;">×</span>	HI121H <span style="float: right; font-size: 0.8em;">×</span>	HI121 <span style="float: right; font-size: 0.8em;">×</span>	HI100H <span style="float: right; font-size: 0.8em;">×</span>	HI100 <span style="float: right; font-size: 0.8em;">×</span>
<b>Physical</b>					
Specific Gravity,23°C	1.04	1.05	1.04	1.02	1.02
Mold Shrinkage,23°C, 3.2mm,%	0.4 ~ 0.7	0.4 ~ 0.7	0.4 ~ 0.7	0.4 ~ 0.7	0.4 ~ 0.7
Melt Flow Index,220°C, 10kg.g/10min	24	22	21	10	11
<b>Mechanical</b>					
Tensile Strength at Yield,23°C, 50mm/min, 3.2mm,MPa	43	50	45	39	37
Tensile Elongation at Yield,23°C, 50mm/min, 3.2mm,%, (Min)	-	-	-	-	-

- b. A pop-up for comparing product properties. You can compare detailed property values at a glance.
- c. Click these buttons to change the standards for the properties. (ASTM / ISO / KS)
- d. Up to five products can be compared. A product can be removed from the comparison list by clicking the X button.

### 1.6.3 Bookmark

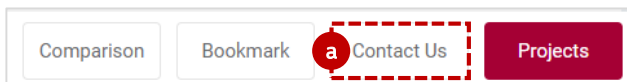
You can select products from the search results and save them in the bookmark list.



- a. This button is activated when you select a product from the search results. Click the button to add the selected product to the bookmark list.  
※ Only three bookmarks can be created at a time, and you need to log in to use this feature.

### 1.6.4 Contact Us

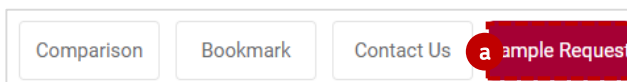
If you want more information on the search features or our products, you can request it by submitting an inquiry. One of our representatives will be assigned to your inquiry based on the inquiry type, and you will receive an email informing you how to proceed.



- a. Select the products you would like to inquire about and click this button to go to the page for submitting an inquiry. The information of selected products will go with you so you can submit your inquiry right away without making any additional selections.

### 1.6.5 Sample Request

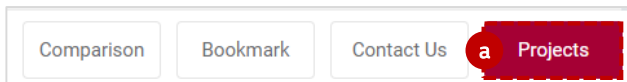
You can request samples without requesting any project if the product group is SAN, PS, or EPS.



- a. Select products you want to request a sample for and click this button to go to the sample request page. You can also take the information of selected products with you.  
※ You need to log in to use this feature.

### 1.6.6 Project Request

You can select products from the list of recommended ABS or ASA products and proceed with a sample development project.



- a. Select products and click this button. You will be taken to the projects page with the relevant information.  
※ You need to log in to use this feature.

## **2. Search by Automotive Specification**

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2.1. Overview

2.2. Screen Components

2.3. Automotive Brand

2.4. Automotive Specification Data

2.5. Search Results

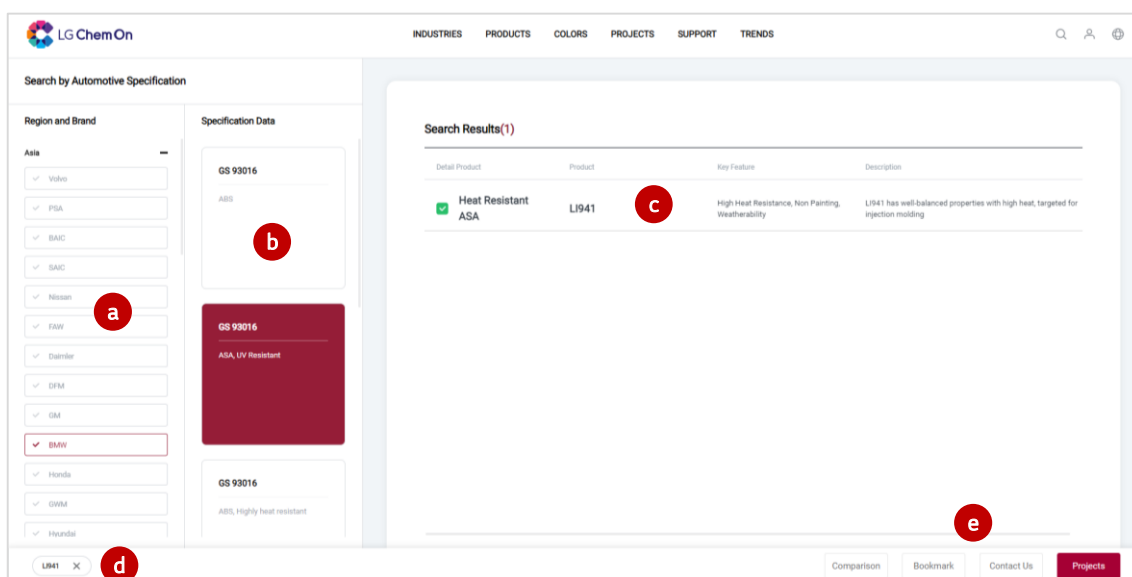
2.6. Key Features

## 2. Search by Automotive Specification

### 2.1. Overview

This search feature lets you to find approved materials that meet the specifications of various automotive manufacturers more easily. To ensure accurate search results, you can select the region, manufacturer name, and specification data.

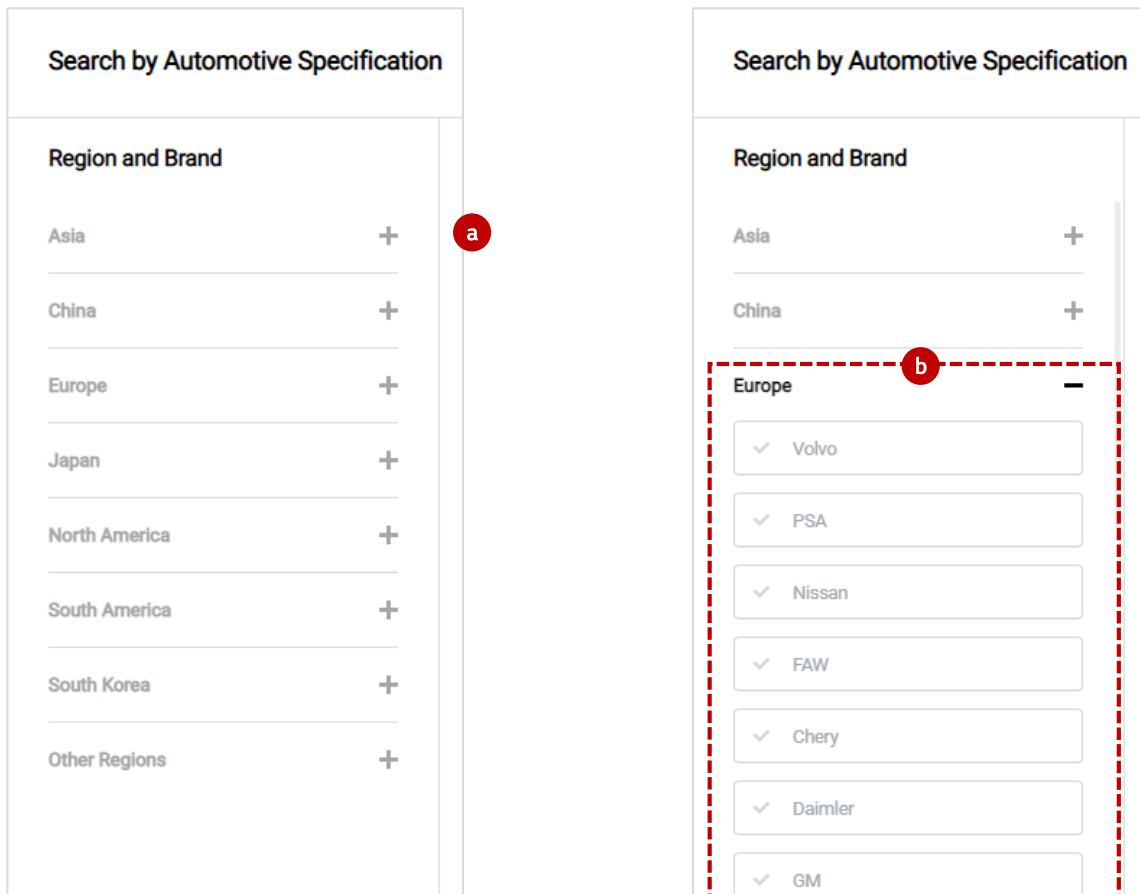
### 2.2. Screen Components



- a. **Region and Brand:**  
Provide a list of sales regions and automotive brands.
- b. **Specification data:**  
When you select a brand, the specification list of the brand is displayed on the screen. Along with the specification information, the desired key features are also displayed on the screen.
- c. **Search Results:**  
Provides the list of LG Chemical products that meet the specification. You can see product description and property information at a glance.
- d. **Selected Products:**  
List of products selected from the search results by clicking the checkbox. Up to five products can be selected.
- e. **Additional Features:**  
You can compare products, create bookmarks, send inquiries, and request samples and projects for the selected products.

### 2.3. Region and Brand

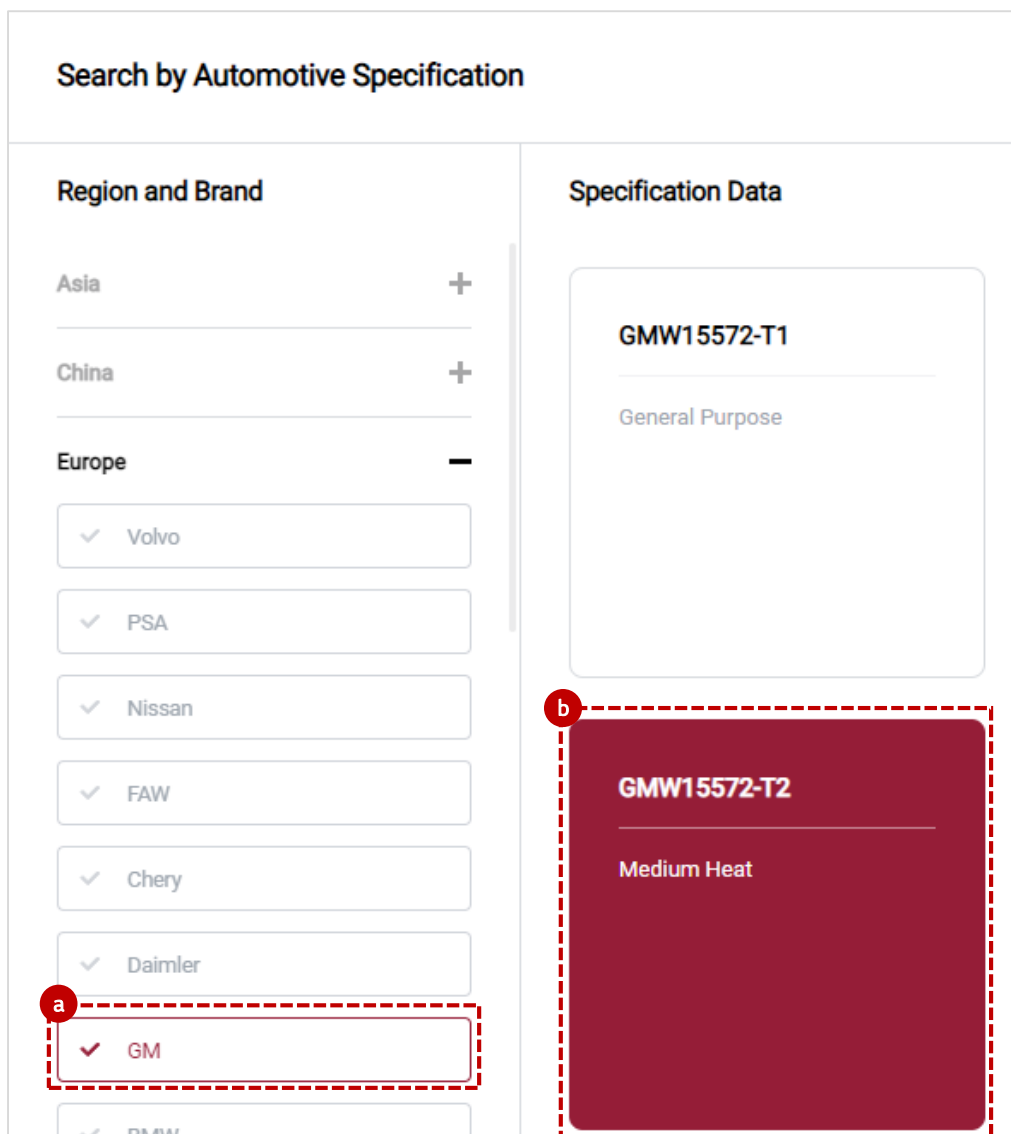
There are many auto brands around the world, and these brands often want different materials depending on the sales region, even if they're in the same motor group. Therefore, LG Chem On classifies and presents auto brands by region so customers can find them more easily.



- a. Region:  
The eight regions consist of Asia, China, Europe, Japan, North America, South America, South Korea, and Other Regions. When a region is selected, the list of OEMs in the selected region is displayed.
- b. Brand:  
List of brands in the selected region. If a brand is selected, the list of the selected brand's specification data will be displayed on the right.

## 2.4. Specification Data

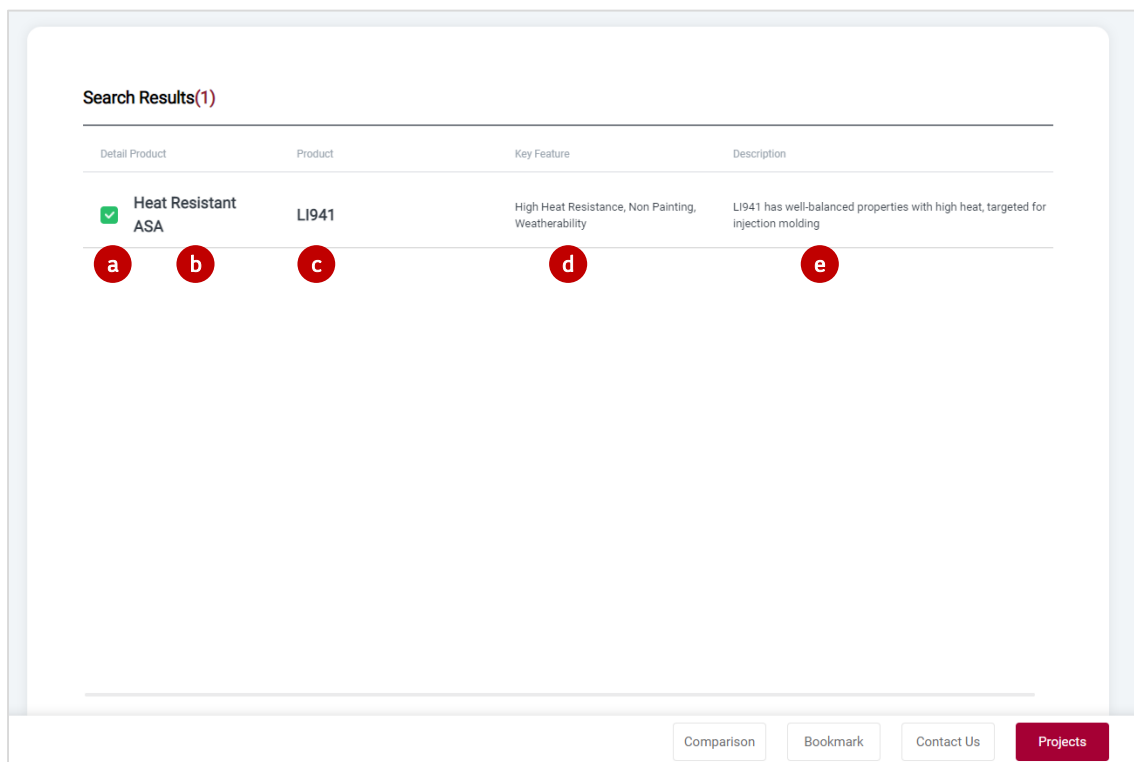
From the specification data and key features provided on the screen, you can select your desired specification data. For the selected specification data, you can get recommendations for LG Chemical products in the search results.



- a. Region and Brand:  
If you select the region and brand, the brand's specification code appears on the two-layer menu on the right.
- b. Specification Data:  
The list of specification codes for the region and brand selected from the left panel is shown on the screen. Key features required for each specification code are also shown on the screen. By selecting the specification data, you can see the list of approved LG Chemical products that meet the specification.

## 2.5. Search Results

The search results window is configured in the same way as the basic search results window where you can see the show detail product, product, key feature, and the description.



- a. **Checkbox:**  
Select products to compare them, create bookmarks, send inquiries, and request samples and projects.
  - b. **Detail Product:**  
You can see the product sub-groups of the products listed in the search results.
  - c. **Product**
  - d. **Key Feature:**  
You can see the key features of the products listed in the search results.
  - e. **Description:**  
Provides a brief description of the products listed in the search results.
- ※ You can use the product comparison feature to check the property information of LG Chem products.

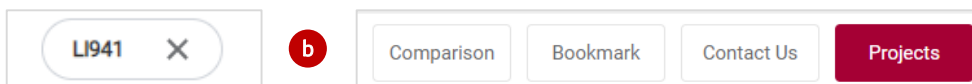
## 2.6. Key Features

To help you more conveniently use LG Chem On services, we provide you with additional features that allow you to compare products, create bookmarks, send inquiries, request samples and projects right away by selecting recommended LG products from the search results.

### 2.6.1 Selecting a Product

Search Results(1)			
Detail Product	Product	Key Feature	Description
<span style="border: 1px dashed red; padding: 2px;"> <input checked="" type="checkbox"/> Heat Resistant ASA                 </span>	LI941	High Heat Resistance, Non Painting, Weatherability	LI941 has well-balanced properties with high heat, targeted for injection molding

- a. Selection checkbox:  
 Checkbox for selecting a product. When the checkbox for a product is selected, the product will be registered in the selected product list at the bottom of the screen, and additional features will be activated.



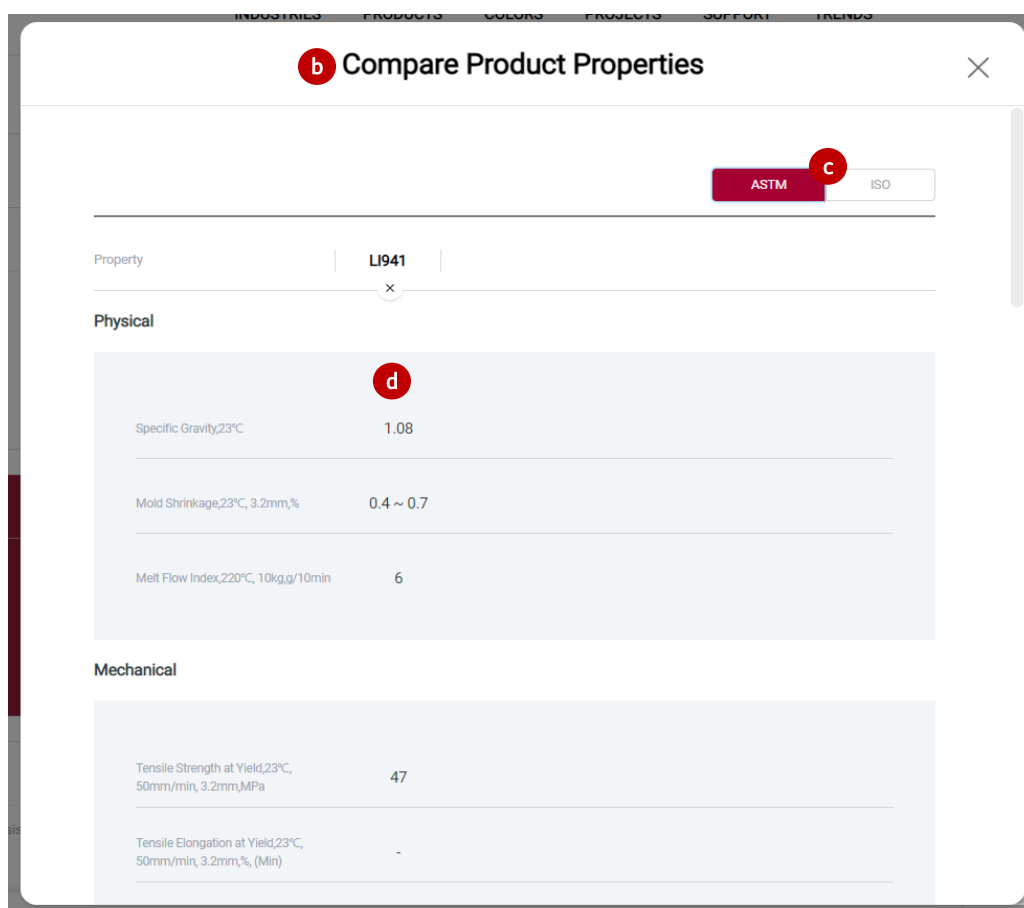
- b. Selection status:  
 If a product is selected from the search results, the product will be registered in the selected product list at the bottom left of the screen, and buttons for additional features at the bottom right corner will be activated.

## 2.6.2 Product Comparison

This feature allows you to select products from the list of recommended products in the search results and compare their properties.



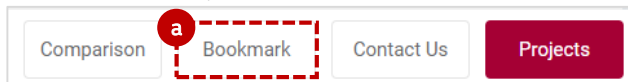
- a. Product Comparison button:  
This button is activated when products are selected from the search results. Clicking the button launches a product comparison pop-up to provide the property information of the selected products.



- b. A pop-up for comparing product properties. You can compare properties at a glance.
- c. Click these buttons to change the standards for the properties.
- d. Up to five products can be compared. You can remove unwanted products by clicking the X button below the product's name and compare only the remaining products.

### 2.6.3 Bookmark

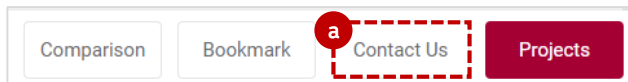
You can select products from the search results and save them in the bookmark list.



- a. This button is activated when you select a product from the search results. Click the button to add the selected product to the bookmark list.  
※ Only three bookmarks can be created at a time, and you need to log in to use this feature.

### 2.6.4 Contact Us

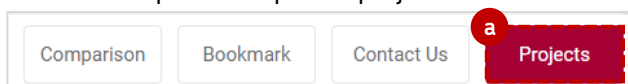
If you want more information on the search features or our products, you can request it by submitting an inquiry. One of our representatives will be assigned to your inquiry based on the inquiry type, and you will receive an email informing you how to proceed.



- a. Select the products you would like to inquire about and click this button to go to the page for submitting an inquiry. The information of selected products will go with you so you can submit your inquiry right away without making any additional selections.

### 2.6.6 Project Request

You can select products from the list of recommended ABS or ASA products and proceed with a sample development project.



- a. Select products and click this button. You will be taken to the projects page with the relevant information.  
※ You need to log in to use this feature.