

Methodology  
**India Steel**  
Composite Index

## Index

---

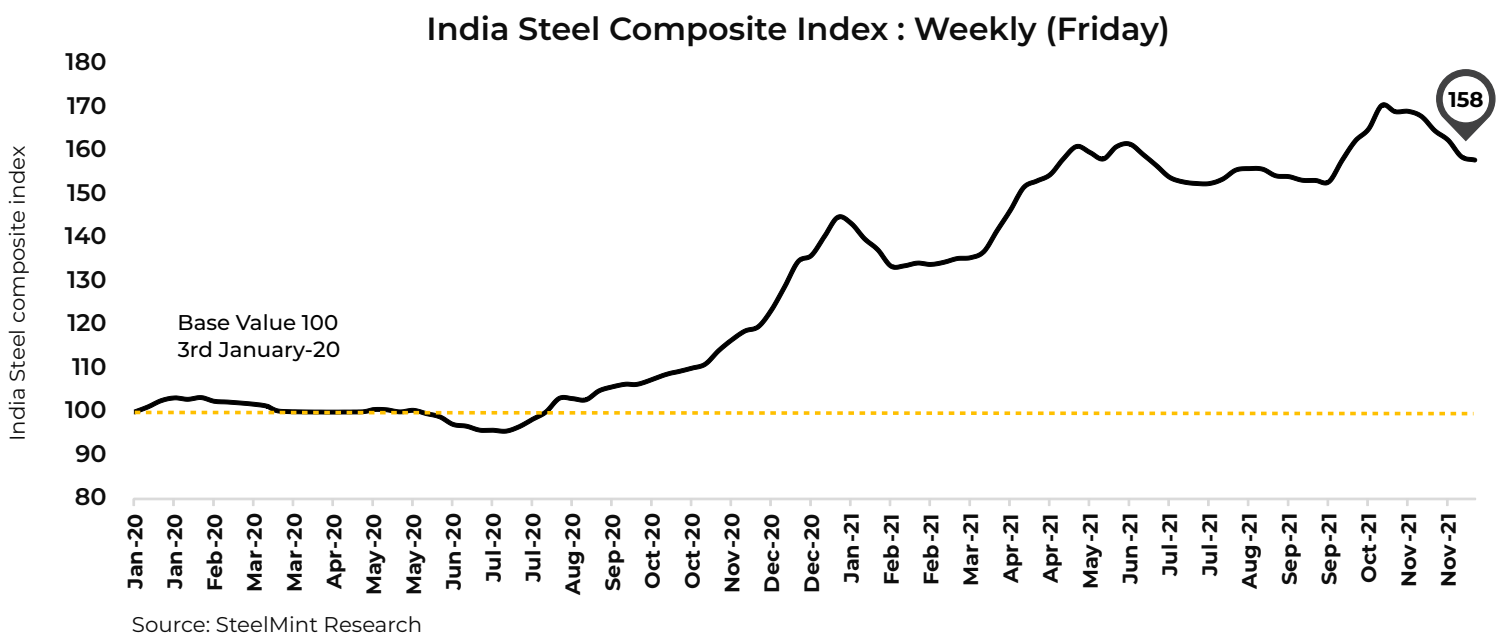
<b>1. India Steel Composite Index Methodology</b> .....	<b>03</b>
<b>2. India Steel Index Base Year</b> .....	<b>04</b>
<b>3. India Long Steel Composite Index Calculations</b> .....	<b>05</b>
<b>4. India Flat Steel Composite Index Calculations</b> .....	<b>06</b>
<b>5. India Steel Composite Index Calculations</b> .....	<b>07</b>
<b>6. Index Input Data</b> .....	<b>09</b>
<b>7. Index Precision</b> .....	<b>09</b>
<b>8. Index Reconstitutions</b> .....	<b>09</b>
<b>9. Miscellaneous Aspects Of Steel Index</b> .....	<b>11</b>
<b>Rationale Publication</b>	
<b>Correction Of Assessments</b>	
<b>Record Keeping</b>	
<b>Methodology Review</b>	
<b>Becoming a Data Submitter with SteelMint</b>	
<b>10. Disclaimer</b> .....	<b>12</b>

## 1. India Steel Composite Index Methodology:

Steel Mint's credible prices backed by robust calculation methodologies have been serving as a benchmark for manufacturers, buyers, traders and end-users in the steel industry to settle contracts or to understand the market cost of physical supply of steel commodities such as long and flat steel.

We have created comprehensive and incisive methodologies to ensure accurate assessment of steel prices for both long and flat products in India, which are governed by SteelMint's standards of compliance with the public and our stakeholders. These methodologies conform to the market dynamics of specific regions of the country and hence, in the case of steel products, different geographies entail different approaches and customised methodologies for the steel index computation.

- The Indian steel industry is broadly classified into the BF-BOF route and the electric/induction furnace (EAF + IF) route. Keeping this broad classification in view, SteelMint proposes to release the steel indices by considering both manufacturing routes.
- The India steel composite index is assessed as per the weighted average prices based on the production of the flat and long steel products. The production of steel is reviewed on an annual basis considering the months from April to March, and the effective date of the new index Value based on production will be published in the next month at the end of each year.
- The India steel long, flat and other sub-indices computation processes are as mentioned below.
- The India steel indices are assessed on a weekly basis: every Friday at 18:30 IST.
- The India Steel Composite Index and Sub-index doesn't give the absolute price.
- SteelMint is releasing the steel index with the base year value 100 i.e., considered on the basis of 3 January 2020 prices.
- Indian states and cities that are steel production hubs where SteelMint conducts regular price assessments are an integral part of the index.



### SteelMint's Steel Composite Index key benefit:

- The Steel Composite Index sets the benchmark to understand carbon steel price changes across flat and long products in the domestic market.
- The composite index would be the indicative price movement for the Indian steel market.

- The level of index in Value reflects changes in the steel market both when prices go up or down, relative to a particular base year price.
- The steel composite index is expected to encourage more transparency in steel market pricing for both the user as well as steel manufacturing companies.

## SteelMint compute and published 10 steel indices based on the methodology as under:

SteelMint Steel Indices	Base Date	Base Value	Weightage % in Steel Composite Index(As per production in FY22)
India Rebar Index	3-Jan-2020	100	61%
India Wire Rod Index	3-Jan-2020	100	23%
India Structural Steel Index	3-Jan-2020	100	16%
<b>India Steel Long Composite Index</b>	<b>3-Jan-2020</b>	<b>100</b>	<b>100%</b>
India HRC Index	3-Jan-2020	100	49%
India CRC Index	3-Jan-2020	100	22%
India GP Index	3-Jan-2020	100	19%
India HR Plate Index	3-Jan-2020	100	10%
<b>India Flat Steel Composite Index</b>	<b>3-Jan-2020</b>	<b>100</b>	<b>100%</b>
Steel Long Index (Weighted Average)	3-Jan-2020	100	51%
Flat Steel Index (weighted Average)	3-Jan-2020	100	49%
<b>India Steel Composite Index</b>	<b>3-Jan-2020</b>	<b>100</b>	<b>100%</b>

## 2. India Steel Index Base Year:

SteelMint is releasing the steel indices with respect to the base year and the selection of the base year is based on the following criteria:

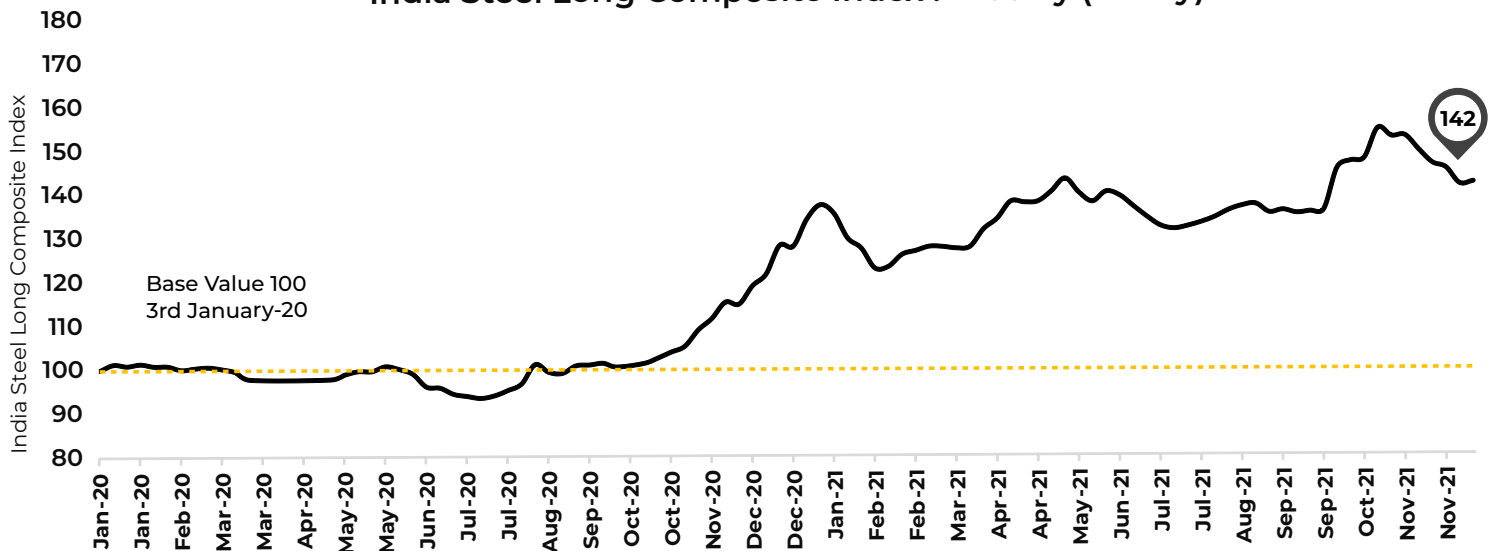
- The base year is 3 January 2020 (Financial Year 2019- 2020) and the base value is 100.
- The base year is the first in a series of years for which the index is calculated and given as the absolute level of 100. Based on this the price momentum rate is calculated.
- It is a normal year in which there are no abnormalities in the level of production, trade and prices. It is a year in which steel prices remained stable across markets in India.
- It is a year for which steel capacity, production and price data are available.

## Methodology to calculate the Index and Sub-Indices:

### 3. India Long Steel Composite Index Calculations:

Finished long steel products are normally produced by hot rolling/forging of blooms/billets/pencil ingots into usable shapes or sizes. The steel long product segment includes products like rebars, wire rods, steel structural and railway materials. Long products are generally used for construction, housing, infrastructure, energy and engineering sectors.

India Steel Long Composite Index : Weekly (Friday)



Source: SteelMint Research

SteelMint assesses the Indian long steel market on daily/weekly basis. The above regional price assessment is used to compute the following long steel long indices

- India Rebar Index
- India Wire Rod Index
- India Structural Steel Index

#### SteelMint computes the India Rebar Index as:

- Induction furnace route: SteelMint uses the capacity weighted average price mechanism for the calculation of the rebar weighted average price.
- Blast furnace route: SteelMint uses the Simple Average Price (SAP) mechanism for the calculation of the rebar weighted average price.
- The above computed rebar weighted average price is multiplied by the rebar weighted average SteelMint assessment capacity for the induction and blast furnace routes separately to calculate the weighted average price of rebar.

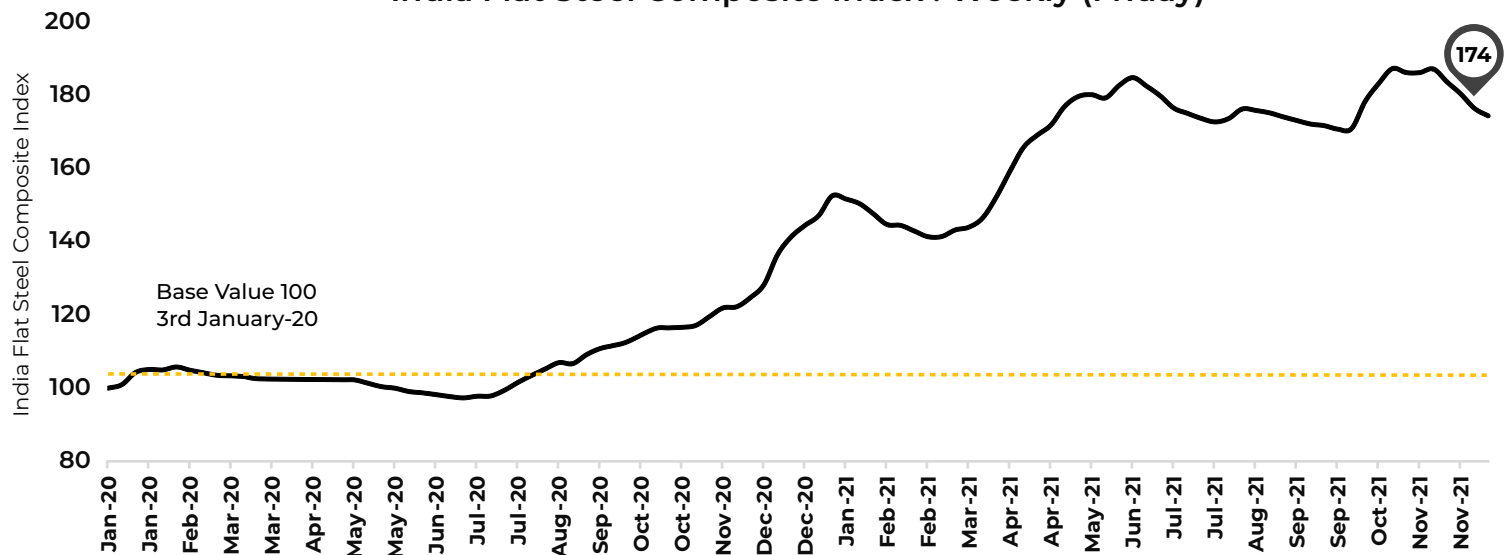
- The addition of the above rebar weighted average price for blast furnace grade and induction grade gives the rebar index computed price.
- The rebar index is calculated accordingly:  $\text{Rebar Index} = (\text{Current composite weighted average price for BF and IF Grades}) / (\text{Base year price}) \times 100$ .
- Similarly, the India wire rod index and India structural steel index are calculated by adopting the above computation process.
- The India long steel composite index is assessed as per the weighted average prices based on the production of the long steel products. The production of steel is reviewed on an annual basis considering the months from April to March and the effective date of the new index Value based on the production will be published after one month of year end.
- Computed India rebar index, India wire rod index and India structural steel indices are multiplied by the weighted average production of long steel products respectively to calculate the weighted average Value of India rebar, wire rod and structural steel indices in the computation of the India long steel composite index.
- The addition of the above weighted average indices of rebar, wire rod and structural steel computes the India Steel Long Composite Index. i.e.

India Steel Long Composite Index = India Rebar Index (WA) + India Wire Rod Index (WA) + India Structure Steel Index (WA).

#### 4. India Flat Steel Composite Index Calculations:

Finished flat steel products that are produced from slabs/thin slabs in rolling mills: This product segment involves hot rolled (HR) coils/sheets, cold rolled (CR) sheets/coils, HR plate, galvanised plain/galvanised corrugated (GP/GC) sheets, pipes, electrical sheets, and tin plates. Flat products are generally used for automotive and truck wheel frames and body parts, heavy machinery, pipes and tubes, construction, packaging and appliances.

**India Flat Steel Composite Index : Weekly (Friday)**



Source: SteelMint Research

SteelMint assesses the Indian flat steel market on a weekly basis. The above regional price assessment is used to compute the following flat steel indices:

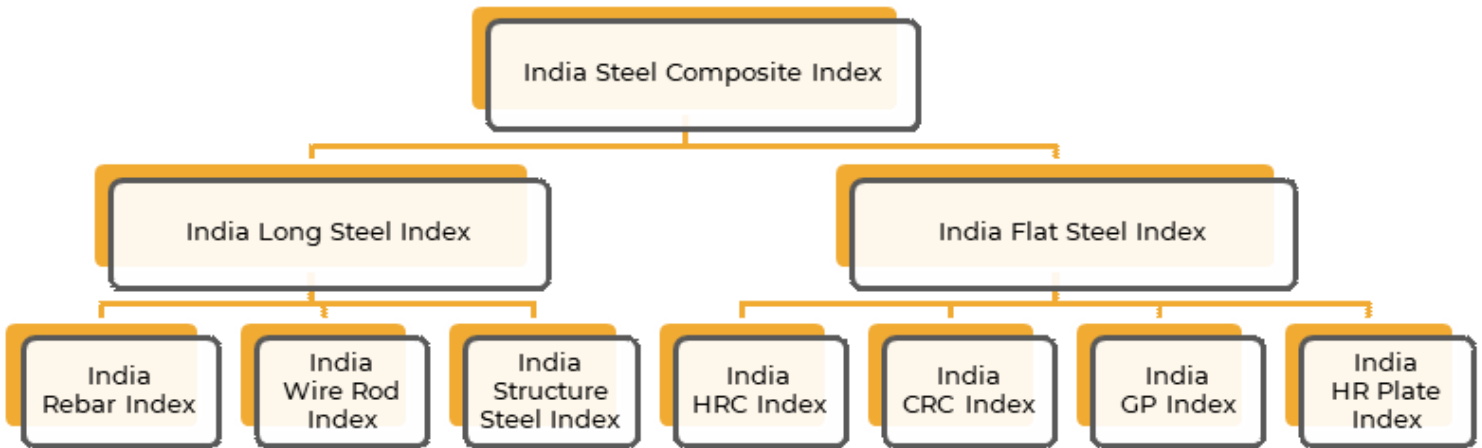
- India HRC Index
- India CRC Index
- India GP Index
- India HR Plate Index

SteelMint's process to compute the India HRC Index is as follows:

- SteelMint uses the Simple Average Price (SAP) mechanism for the calculation of the HRC index.
- The HRC index is calculated accordingly:  $HRC\ Index = (Current\ Simple\ Average\ Price / Base\ Year\ Price) \times 100$ .
- Similarly, the India CRC Index, India GP Index, and India HR plate indices are calculated by adopting the above computation process.
- The India flat steel composite index is assessed as per the weighted average prices based on the production of the flat steel products. The production of steel is reviewed on an annual basis considering the months from April to March and the effective date of the new index Value based on the production will be published after one month of year end. Flat steel production is segregated by the way of flat product segments i.e. HRC, CRC, HR plate, GP/GC/GL, pipes, electrical sheets, and tin plates. The production of each product is considered separately to avoid the multiple consumption of flat products in downstream flat product making.
- The above computed India HRC index is multiplied by the weighted average production of hot rolled coil to calculate the weighted average Value of India HRC index in the computation of India flat steel composite index.
- Similarly, the India CRC index, India GP index and India HR plate index are multiplied by the weighted average production of flat products respectively to calculate the weighted average Value of India CRC, GP and HR plate indices in the computation of the India flat steel composite index.
- The addition of the above weighted average indices of flat products computes the India Flat Steel Composite Index. i.e.  $India\ Flat\ Steel\ Composite\ Index = India\ HRC\ Index\ (WA) + India\ CRC\ Index\ (WA) + India\ GP\ Index\ (WA) + India\ HR\ Plate\ Index\ (WA)$

## 5. India Steel Composite Index Calculations:

India finished steel production is divided into two main categories - long and flat products. In addition to these two prime segments, finished steel production is calculated. SteelMint India Steel Composite Index contains a set of 10 indices:



- India steel composite index is assessed as per the weighted average indices of flat and long steel index Value based on the production of steel products. The production of steel is reviewed on an annual basis considering the months from April to March and the effective date of the new index Value based on the production will be published after one month of year end.
- The above computed India long steel composite index is multiplied by the weighted average production of long steel to calculate the weighted average Value of long products in the computation of India steel composite index.
- Similarly, the computed India flat steel composite index is multiplied by the weighted average production of flat product to calculate the weighted average Value of flat products in the computation of the India steel composite index.
- The addition of the above weighted average composite indices of flat and long products computes the India Steel Composite Index.

India Steel Composite Index = India Steel Long Composite Index (WA)+ India Flat Steel Composite Index (WA).

### SteelMint's India Steel Indices from October'21 (Weekly)

Date	Rebar Index	Wire Rod Index	Structure Steel Index	India Steel Long Composite Index	HRC Index	CRC Index	GP Index	HR Plate Index	India Flat Steel Composite Index	India Steel Composite Index	Week Days
<b>1-Oct</b>	<b>142</b>	<b>154</b>	<b>144</b>	<b>145</b>	<b>171</b>	<b>171</b>	<b>168</b>	<b>175</b>	<b>171</b>	<b>158</b>	<b>Friday</b>
8-Oct	145	155	144	147	179	177	176	181	178	162	Friday
15-Oct	145	155	146	148	184	179	184	188	183	165	Friday
22-Oct	152	163	151	154	189	181	187	191	187	170	Friday
29-Oct	150	162	149	152	188	180	184	190	186	169	Friday
<b>5-Nov</b>	<b>150</b>	<b>162</b>	<b>149</b>	<b>153</b>	<b>188</b>	<b>180</b>	<b>184</b>	<b>190</b>	<b>186</b>	<b>169</b>	<b>Friday</b>
12-Nov	146	159	146	149	189	183	182	190	187	168	Friday
19-Nov	143	158	143	146	186	179	179	185	184	165	Friday
26-Nov	141	158	143	145	183	177	174	183	180	162	Friday
<b>3-Dec</b>	<b>138</b>	<b>152</b>	<b>140</b>	<b>142</b>	<b>179</b>	<b>173</b>	<b>169</b>	<b>180</b>	<b>176</b>	<b>159</b>	<b>Friday</b>
10-Dec	139	153	138	142	177	171	168	176	174	158	Friday

Source: SteelMint Research



## 6. Index Input Data:

SteelMint uses several own methodology-based data for the computation of steel indices such as:

Data Contribution in Indices	Data Sources
Steel Commodity Prices	SteelMint Research
Steel Capacity	SteelMint Research
Steel Production	SteelMint Research and Joint Plant Committee Report.
Indices Steel Products	Long Steel Products: Rebar, Wire Rod and Structure Steel Flat Steels Products: Hot Rolled Coil/sheets, Cold Rolled Coil/sheet, Galvanized Plain Coil/sheets, and Hot Rolled Plate.
Indices Steel Product Specifications	SteelMint's Research, Price Assessment Methodology.

## 7. Index Precision:

The level of precision for index computations are maintained as follows:

- Steel prices for index computations are in Indian Rupees and follow the SteelMint price assessment methodology.
- Index values are in whole numbers without any decimal places.
- Index calculations values i.e., prices, capacity and production are in whole numbers without any decimal places.
- SteelMint follows the official holiday schedule for the calculation of index.

## 8. Index Reconstitutions:

SteelMint's steel composite index and sub-indices are computed based on the domestic steel spot market prices from the major regions of India, the steel assessment prices combining the spot market price, auction price or tender prices from the respective buyers/sellers, manufacturers, dealers or trustworthy trading firms.

SteelMint's indices doesn't include the steel export, import or bulk project price because of following reasons:

- The steel import/export prices relatively influence the domestic spot market prices.
- The bulk project procurement prices are less transparent compared to open spot market prices.
- These are the reasons why the above prices are not considered in the index computation methodology. However, subject to availability, SteelMint could consider the above prices in the indices.

Steel indices product specifications are based on the steelMint's price assessment methodology, same is open to reviewed based on market trade conditions and incorporation/replacement of the steel products are based on the change of price assessment methodology. The effective date of the new reconstituted indices based on the above will be published after one month of any changes in product specifications.

- The weightage of capacity in computation of the sub-indices are reconstituted/reviewed on an annual basis, considering the months from April to March and incorporation/replacement of the region is based on the change of capacity. The effective date of the new reconstituted indices based on capacity will be published after one month of year end.
- The weightage of production in the computation of the India steel composite index is reviewed on an annual basis, considering the months from April to March and the effective date of the new reconstituted index based on production will be published after one month of year end.
- The steel indices are recalculated whenever error occurs. However, error correction in the historical index is difficult. Hence SteelMint has the right to supersede the corrections. The same changes or correction will be informed to the users.

### SteelMint's India Steel Indices and Product Specifications

SteelMint India Steel Indices	Index Computation Weekly Time	Index Publication Schedule & Time	Commodity	Sub Commodity	Specifications
India Rebar Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Rebar Induction Furnace Route	Finished Long	12-25 mm, IS 1786:2008, Fe 500
		Saturday at 10 - 11 AM	Rebar Blast Furnace Route	Finished Long	12-32 mm, IS 1786:2008 ,Fe 500D
India Wire Rod Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Wire Rod Induction Furnace Route	Finished Long	5.5 mm, IS 7887: 1992
		Saturday at 10 - 11 AM	Wire Rod Blast Furnace Route	Finished Long	5.5-6.0 mm, SAE 1008
India Structure Steel Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Structure Sttel (Channel) Induction Furnace Route	Finished Long	100x50x5 mm, E-250 Gr A
		Saturday at 10 - 11 AM	Structure Steel (Channel) Blast Furnace Route	Finished Long	100x50x5 mm, E-250 Gr A
<b>India Steel Long Composite Index</b>	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Rebar, Wire Rod and Sructure Steel (Channel)	Finished Long	As above
India HRC Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Hot Rolled Coil/Sheets	Finished Flat	2.5 -8 mm IS 2062
India CRC Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Cold Rolled Coil/Sheets	Finished Flat	0.90 mm, IS 513 Gr O,
India GP Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Galvanised Plain Coil/sheets	Finished Flat	0.8mm, 120 GSM, IS 277: 2018
India HR Plate Index	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Hot Rolled Plate	Finished Flat	5-10 mm, Gr E-250
<b>India Flat Steel Composite Index</b>	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Flat Steel (HRC,CRC, GP and HR Plate)	Finished Flat	As above
<b>India Steel Composite Index</b>	Friday at 18:30 IST.	Saturday at 10 - 11 AM	Finished Long and Flat Steel	Steel	As above

## 9. Miscellaneous Aspects of Steel Index

---

Common to all assessments

### **Rationale Publication:**

A rationale for the assessment carried out would include a summary of the type and number of data points considered for price calculation and reasons for exclusion of deals, if any, are published on the day of publication of prices to provide transparency to the assessment process.

### **Correction of Assessments:**

Steelmint will publish corrections of assessments if an error has resulted due to faulty entry of data or an unintentional omission of data point in the price calculation process. However, prices will not be corrected or updated in any manner if new deals or bids/offers become available after the weekly timestamp.

### **Record Keeping:**

Records of price sheets used in assessment, calculation, rationale and notes taken by reporters during the data collection and discussion process with contacts are stored securely in physical or electronic forms for a reasonable period of time.

### **Methodology Review:**

The basic purpose of any pricing process is to accurately reflect market fundamentals and as such the methodology is open to review as market conditions and modes of trading and pricing contracts change. Noticeable changes in chemical specifications of scrap exported from India will also trigger a review in SteelMint's methodology. Once editors and the management decide to review the methodology, sufficient time will be provided to external stakeholders to comment on the proposed methodology changes via email or other appropriate communication tools. Any final change in the methodology will only be made after completing an external consultation process.

Similarly, the decision to add or cease an assessment will also be taken after due consultation with the external stakeholders.

### **Becoming a Data Submitter with SteelMint:**

SteelMint continually seeks to increase the number of market sources willing to take part in the price discovery process. The main condition is that contributors should be active participants in the market and have in-depth knowledge of market dynamics regarding that specific commodity.

The SteelMint Data Partner Policy provides guidelines defining the high level of data quality and integrity that we expect from contributing organisations providing pricing data. Market participants who wish to provide pricing data and be part of the price discovery process should first read the Data Partner Policy. All data sources are subject to review before the data submitted is taken into account in the pricing process. If you want to become a data submitter/contributor to SteelMint, or have questions or comments about the methodology and price specifications

**Please Contact SteelMint's Audit and Compliance Officer at [info@steelmint.com](mailto:info@steelmint.com)**

# DATA IS OUR DNA

## Disclaimer

---

SteelMint has taken due care and caution in compilation of content. Information is just for reference not intended for trading purpose or to address your particular requirement. The content includes facts, views, and opinions are of individuals and not that of the SteelMint management. We and our content licensors do not guarantee or warrant the accuracy, completeness or timeliness of, or otherwise endorse these views, and opinions. SteelMint and its affiliates, or their employees, directors or agents shall not be liable or responsible for any loss or costs or any action whatsoever arising out of use or relying on the spot prices disseminated.