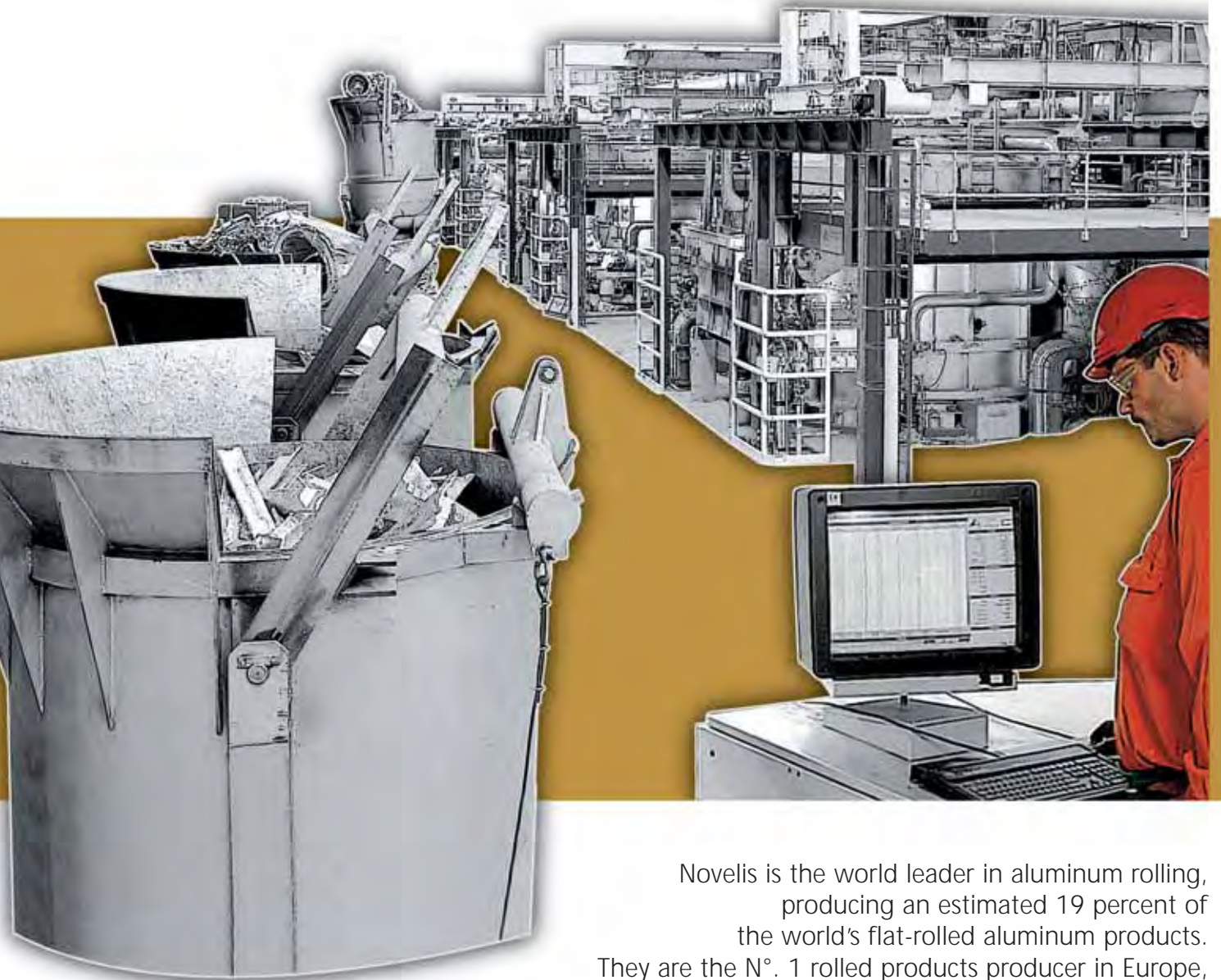




VERAL®

Prepainted aluminium
rolled products PVdF
for facades

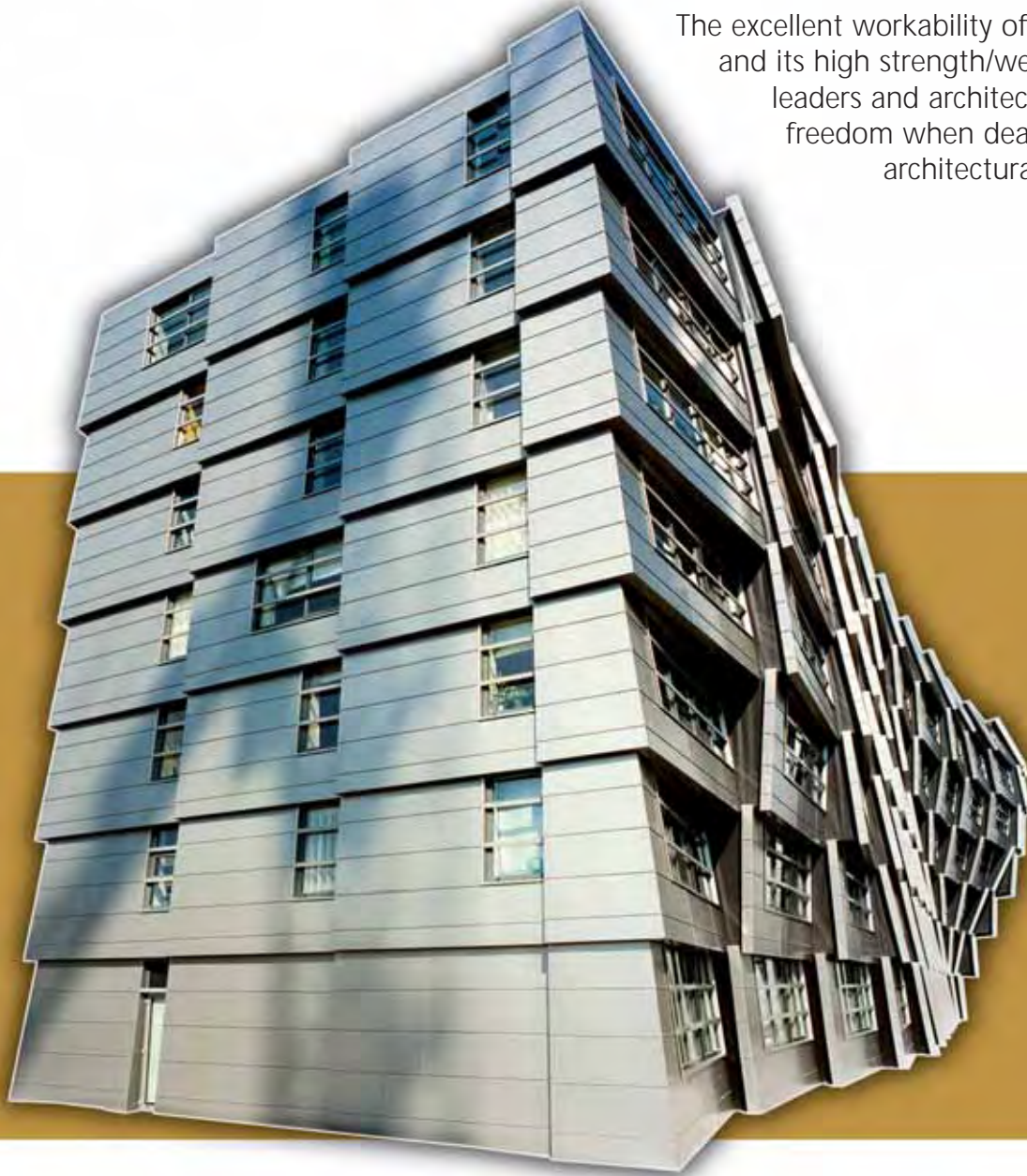




Novelis is the world leader in aluminum rolling, producing an estimated 19 percent of the world's flat-rolled aluminum products. They are the N°. 1 rolled products producer in Europe, South America and Asia, and the N°. 2 producer in North America. Novelis is globally positioned, operating in 11 countries with approximately 12,900 employees. Formed as a Canadian corporation in January 2005, Novelis is a wholly owned subsidiary of Hindalco Industries Limited - Asia's largest integrated producer of aluminium and a leading producer of copper. Based in Mumbai, India, Hindalco is one of the most cost-efficient aluminium producers globally.

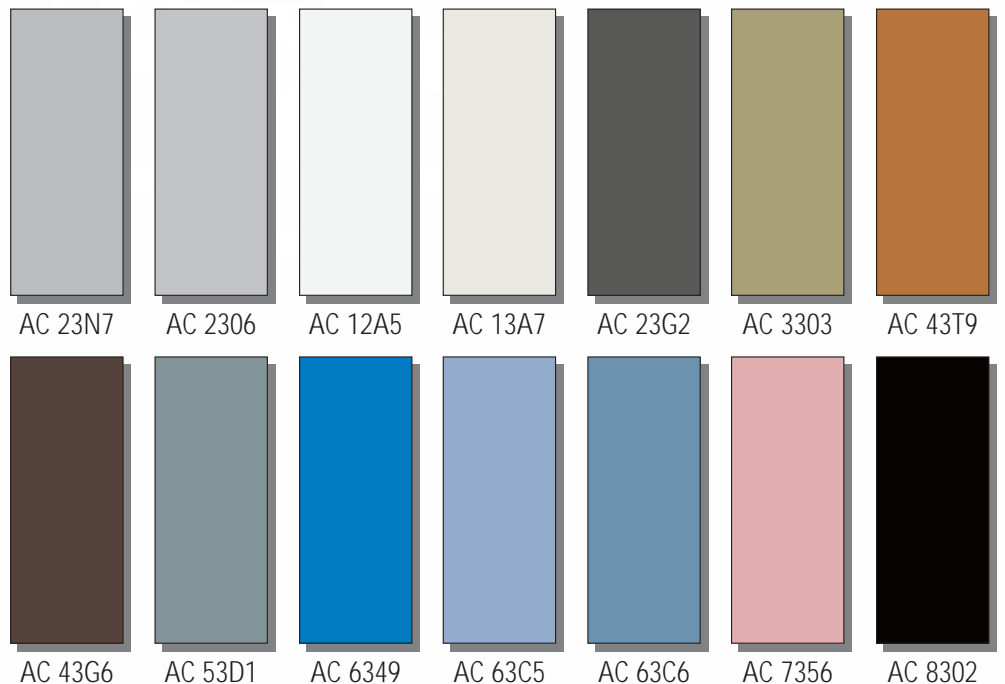
PVdF paint, thanks to its excellent resistance to Ultra Violet rays and corrosion is the perfect solution to all facade cladding requirements. VERAL® is produced in alloy EN AW 5005: this specification has excellent corrosion resistance combined with a high level of workability.

The excellent workability of prepainted aluminium and its high strength/weight ratio gives project leaders and architects the greatest creative freedom when dealing with highly critical architectural details such as edges and terminations.



Our range of pastel and metallic colours has been recently increased with the addition of two new 2 layer metallic colours and transparent paints.

This colour chart includes proposals of prepainted aluminium colours available in matt, demi and high gloss versions. It is possible to realise prepainted aluminium coils on sample bases. The colours are as close as printing technique allows. We suggest to ask for an original painted aluminium sample.



Technical Sheet - VERAL®			
Product description			Norms
Aluminium alloy:	-	UNI-EN AW-5005	UNI-EN 573/3
Metal gauge:	[mm]	1.00 - 2.00	
Temper:	-	H42	UNI-EN 1396
Coating top side:	-	PVdF paint	int. standards
Backing coat:	-	Protective lacquer	int. standards
Metal specification			Norms
Mechanical properties after coating - transverse to rolling direction			UNI-EN 1396
Rm:	[MPa]	125 - 165	
Rp0.2:	[MPa]	80 min	
A50:	[%]	5 min from 1.00 mm up to 1.50 mm	
		6 min over 1.50 mm up to 2.00 mm	
Tolerance on dimensions:		Gauge	UNI-EN 485/4
		Width and Length	UNI-EN 485/4

CERTIFICATES

Health and Safety Management System:
BSI OHSAS 18001; 1999

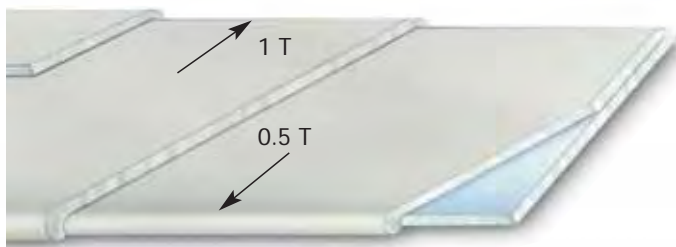
Environment Management System Certificate:
EN ISO 14001; 2004

Quality Management System Certificate:
EN ISO 9001; 2000



Technical Sheet - VERAL®			
Pre-treatment			
Degreasing and chromium free treatment on top and reverse side			
Organic coating specification (ECCA and UNI-EN 1396)		Top side	Backing coat
Coating system:		PVdF (2 layer system)	Polyester
Typical coating thickness:	ECCA T1	23	4 approx.
Pencil hardness:	ECCA T4	KOH-I-NOR	not relevant
Specular gloss to 60°:	ECCA T2	[units]	30
Adhesion 90°/180°:		[%]	not relevant
Adhesion on cross hatch + impact:		[%]	100
M.E.K. / Solvent rubbing test:	ECCA T11	double rubs	150
Resistance to craking on bending:	ECCA T7	-	1.0 T from 1.00 mm up to 1.20 mm
			1.5 T over 1.20 mm up to 1.50 mm
			2.0 T over 1.50 mm up to 2.00 mm

Novelis Group is an important entity in Italy, too. There are two plants near Milan - Bresso and Pieve Emanuele. Novelis' Bresso plant produces prepainted rolled products using a range of paints and surface finishes. Pieve plant produces aluminium coil and sheet. It is equipped with casters and cold rolling facilities. Novelis is present throughout the whole Italian market thanks to its four sales centres in Verona, Bologna, Florence and Rome.



VERAL® is the Novelis brand name for its aluminium sheet, prepainted with PVdF based paints, which has been specifically designed for facade cladding.

Technical Sheet - VERAL®		
Lab TEST		
UV Resistance:	ASTM G53 - 88	Over 3.000 hours
Acetic Salt Spray Test (> 500 h):	ASTM G85	No change
Humidity test (> 1000 h):	ASTM D2247 - 87	No change
Outdoor Exposure		
Hoek Van Holland (Netherlands):	72 months	No change
Florida (U.S.A.):	120 months	No Chalking; 80% gloss retention



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