# **Antidumping specialists**

17 April 2014

The Director
Operations 1
Anti-Dumping Commission
5 Constitution Avenue
Canberra ACT 2601

# **Exemption inquiry 20: Aluminium extrusions**

This submission is made on behalf of Capral Limited (Capral), a member of the Australian aluminium extrusions industry, in relation to the exemption inquiry into aluminium extrusions exported to Australia from China. We understand that P&O Aluminium (Sydney) Pty Ltd (P&O) has sought two exemptions from dumping and countervailing duties for aluminium extrusions covered by tariff concession orders (TCOs) as follows:

### TC 1331293

Aluminium extrusion profiles, extruded, conforming to Australian Aluminium Specification 7005 T593 (AAS 7005 T593), having ALL:

- (a) Minimum cross sectional dimension NOT less than 6 mm and NOT greater than 450 mm;
- (b) Minimum ultimate tensile strength NOT less than 350 MPa; and
- (c) Minimum yield tensile strength NOT less than 300 MPa.

#### TC 1335698

Aluminium extrusion profiles, produced with alloy EN AW-5005A (EN AW-AIMg1C) having ALL of the following:

- (a) minimum cross sectional dimension NOT less than 6 mm and NOT greater than 450 mm;
- (b) alloy chemical composition by percentage weight of ALL of the following:
  - (i) iron NOT exceeding 0.45%;
  - (ii) silicon NOT exceeding 0.3%;
  - (iii) manganese NOT exceeding 0.15%;
  - (iv) chromium NOT exceeding 0.1%;
  - (v) copper NOT exceeding 0.05%;
  - (vi) magnesium NOT less than 0.7% and NOT greater than 1.11%;
  - (vii) zinc NOT exceeding 0.2%
  - (viii) other impurities NOT exceeding 0.15%;
  - (ix) remainder Al.

Both TCOs were made in December last year without input from Capral. We submit that Capral can produce substitutable goods for both types of extrusions and intends to request revocation of the TCOs.

### Non-Confidential – For Public Record

# 7005 T593 (TC 1331293)

Capral can produce substitutable goods conforming to Australian Aluminium Specification 6082 T6 (AAS 6082 T6) from its extrusion press in Campbellfield, Victoria. Although a different alloy would be used, the extrusions would have the same properties as the goods conforming to the TCO.

# **EN AW-5005A (TC 1335698)**

Capral can produce substitutable goods from the range of alloys it typically uses. Attachment A outlines the properties of extrusions made from alloy EN AW-5005A and the properties of extrusions made from three alloys used by Capral. There is significant overlap between the properties of 5005A and the other alloys. Capral can produce substitutable goods using one of these other alloys. The choice of alloy would depend on the final application of the extrusions and we note that P&O does not specify the end-use of the goods to which the exemption is intended to apply.

### **Conclusion**

Important details of the exemption goods have not been made publicly available, such as the nature of the profiles or the end-use to which they are to be put. Based on the information available to us we submit that Capral can produce substitutable goods with the same properties as the exemption goods and we intend to request revocation of the TCOs on which P&O's application is based. If further details of the exemption goods are made available we will endeavour to provide evidence of similar goods Capral produces or has produced in the past.

Justin Wickes Director

# Comparison of EN AW 5005A with typical alloys extruded by Capral

# Alloy EN AW-5005A

#### EN AW-5005A / ISO:

Composition: Al 0.9Mg

Applications: Building industry use: sidings, roofing, corrugated sheets. Furniture: anodized parts. Food

and chemical equipment, containers. Name plates, road signs. Super structures in marine and offshore applications. Packaging, equipment for heating and cooling, can bodies. Piping,

tubing. Vessels.

Characteristic Properties:

Very good resistance to atmospheric corrosion. Very good weldability. Very suitable for decorative anodizing (two step colour anodizing). Good formability by pressing and roll

forming. Medium strength alloy.

Product Forms: Bar, Profile section shape, Plate, Sheet, Tube, Wire

Temper	Form	RP02N	RP02	RMN	RM	RG	A5N	A5	A50N	A50	HBN	НВ	HV
0	Sheet	35	45	105	120	80	24	27	-	-	32	32	32
Hx2	Sheet	80	125	125	145	85	10	13	-	13	42	45	46
Hx4	Sheet	110	145	145	165	95	8	12	-	11	47	50	50
Hx6	Sheet	130	165	165	185	105	6	9	-	8	52	55	55
Hx8	Sheet	160	185	190	205	115	5	8	-	7	57	60	60
Hx9	Sheet	190	210	210	225	125	3	5	-	4	60	65	70

# Alloys extruded by Capral

EN AW-6060 / ISO: Al MgSi

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<b>Composition:</b>	Al 0.5Mg 0.5Si Fe
Applications:	Architectural sections for windows, doors, curtain walls. Interior fitting, frame system, lighting, ladders, railings, fences. Heat sink sections, electronic modules, electro motor housings. Flexible assembly systems, special machinery elements. Truck and trailer flooring, pneumatic installation, railway, inside applications. Irrigation, heating and cooling pipes. Furniture, office equipment.
Characteristic Properties:	Very good corrosion resistance. Very good weldability. Good cold formability especially in temper T4. Medium strength heat treatable alloy with a strength slightly lower than 6005A. Medium fatigue strength. Commonly used alloy for very complex cross sections. Standard decorative anodizing quality.

**Product Forms:** Bar, Profile section shape, Rod, Slugs impacts, Tube, Wire

Temper	Form	RP02N	RP02	RMN	RM	RG	A5N	A5	A50N	A50	HBN	НВ	HV
О	Unspecif.	-	50	-	100	70	-	27	-	26	-	25	25
T1	Unspecif.	-	90	-	150	95	-	25	-	24	-	45	45
T4	Extr. Tube	65	90	130	160	105	15	20	-	20	45	50	55
T5	Unspecif.	-	185	-	220	140	-	13	-	13	-	75	80
Т6	Extr. Tube	195	215	190	245	150	10	13	-	12	75	85	90

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EN AW-6005A / ISO: Al SiMg(A)

Composition:	Al 0.6Mg 0.7Si Mn Cr
Applications:	Railway and bus profile structures with complex sections (integral structures). Structura engineering, pylons, platforms, pipeline. Applications in the electrical and mechanical precision industries. Extruded sections for various purposes requiring strength greater than 6060 and 6063. Masts for sailing boats. Furniture.
Characteristic Properties:	Very good corrosion resistance. Very good weldability. Medium high strength heat treatable extrusion alloy, strength slightly higher than 6060 and 6063. High fatigue strength. Better extrusion characteristics than 6082 and 6061 for complex cross sections.

**Product Forms:** Bar, Profile section shape, Tube

Temper	Form	RP02N	RP02	RMN	RM	RG	A5N	A5	A50N	A50	HBN	НВ	HV
T1	Unspecif.	-	100	-	200	-	-	25	-	-	-	-	-
T4	Unspecif.	-	110	-	210	-	-	16	-	-	-	-	-
T5	Unspecif.	200	240	250	270	-	8	13	-	-	-	-	-
T6	Bar	225	260	270	285	175	8	12	-	-	85	90	95

EN AW-6082 / ISO: Al Si1MgMn

Composition: Al 0.9Mg 1.0Si 0.7 Mn

**Applications:** Heavy duty structures in rail coaches, truck frames, ship building, offshore, bridges, military

bridges, bicycles, boilermaking. Machinery: platforms, flanges, hydraulic systems, mining equipment, pylons and towers, motorboats. Nuclear technology. Masts and beams for ship building (especially for sweet water). Tubes for scaffolding, framework for tents and halls,

piping, tubing Screw machine products. Rivets.

**Properties:** 

Characteristic Very good corrosion resistance. Very good weldability (lowered strength values in the zone of welding). Good machinability. Good cold formability in T4 temper after a stabilizing heat

treatment. Heat treatable medium high strength construction. Alloy with a strength somewhat

higher than 6061. Medium high fatigue strength. Not suitable for complex sections.

**Product** Bar, Forging, Profile section shape, Plate, Slugs impacts, Sheet, Tube, Wire Forms:

Temper	Form	RP02N	RP02	RMN	RM	RG	A5N	A5	A50N	A50	HBN	НВ	HV
0	Sheet	-	60	-	130	85	18	27	-	26	35	35	35
T1	Unspecif.	-	170	-	260	155	-	24	-	24	-	70	75
T4	Unspecif.	-	170	-	260	170	-	19	-	19	-	70	75
T5	Unspecif.	250	275	290	325	195	8	11	8	11	-	90	95
Т6	Extr. Tube	260	310	310	340	210	10	11	-	11	95	95	100

**Key to Properties** 

RP02N: Min proof stress 0.2% MPa Proof stress 0.2% RP02: MPa RMN: Min ultimate tensile strength MPa Ultimate tensile strength RM: MPa RG: Shear stress MPa Min elongation A5 % A5N: A5: Elongation A5 % A50N: Min elongation A50 % A50: Elongation A50 % HBN: Min hardness, Brinell HBN HB: Hardness, Brinell HB HV: Hardness, Vickers ΗV

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