

Brakes – Disc brakes and their applications - General conditions for the certification of brake parts

Appendix I

Brake pads certified in international traffic

- Appendix I consists of 16 tables, one for each category of rolling stock or of service type;
- The tables:
 - Type Ra/b – Brake pads for high speed trains (up to 300 km/h – max. 13,8 MJ – organic or sintered pads),
 - Type S – Brake pads for passenger cars (up to 200 km/h, organic pads), and
 - Type T – Brake pads for passenger cars (up to 200 km/h, sintered pads)are inserted at the beginning;
- Table I 15 contains the brake pads which have received a provisional certification limited in time to enable them to undergo the in-service tests;
- Table I 16 contains the brake pads which UIC certification has expired, but which may still be used on particular vehicles.



Appendix I – Brake pads certified in international traffic

Appendix I.1.1a: Type 1.1a - Brake pads for high speed trains (up to 300 km/h; organic brake pads, max. 13.8 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Bremskerl	BK 3000 (2)	no. R1a and no. S2.1	Bremskerl	01.04.2006 (4) 01.04.2016 (5)	31.03.2016 (4) 31.03.2026 (5)
Puran	BZP 625	no. R1a and no. S2.1	Puran	01.07.2014 22.01.2025	30.06.2024 (4) 31.01.2035 (5)
Puran	BZP 826	no. R1a and no. S2.1	Puran	14/01/2021	13/01/2031

- (2) Bench tests on a grey cast-iron brake disc
(4) First certification
(5) Prolongation of certification

Appendix I.1.1b: Type 1.1b - Brake pads for high speed trains (up to 320 km/h sintered brake pads max. 17.8 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
CoFren	Frendo SP 201/320 SI (3)	no. R1b and no. S2.1	CoFren	01.02.2007 (4) 01.02.2017 (5)	31.01.2017 (4) 31.01.2027 (5)

- (3) Bench tests on a cast steel brake disc
(4) First certification
(5) Prolongation of certification

Appendix I.2: Brake pads for high-speed trains (up to 320/330 km/h sintered brake pads 17.8/32.85 MJ max)¹

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
CoFren	CFSP 150/T42	no. 5A and 5B (7th edition of Leaflet), as well as no. S2.1,	Wabtec	24.07.2019	02.07.2029
Federal Mogul	Jurid 707 (3)	no. 5B (7th edition of Leaflet)	Federal Mogul	01.07.2021	30.06.2031
Knorr-Bremse	UltraPad 707 (Identical to Jurid 707)	no. 5B (7th edition of Leaflet)	Knorr-Bremse	19.01.2022	30.06.2031
Puran	PRF 1103 (6)	no. 5B (7th edition of Leaflet)	Puran	01.07.2016	30.06.2026
Puran	CRH5 (3)	no. 5A (7th edition of Leaflet) and no. S2.1	Puran	01.07.2017	30.06.2027
TYSJ	TS 399B (3)	no. 5B (7th edition of Leaflet)	Tianyshangija	01.07.2017	30.06.2027
TYSJ	TS 588B (3)	no. 5B (7th edition of Leaflet)	Tianyshangija	01.08.2020	31.07.2030

- (3) Bench test carried out on a disc brake of cast steel;
(4) Bench test carried out on a non-ventilated disc brake of forged steel
(5) Prolongation according to the generic test programme in the 8th edition of the Leaflet
(6) Brake pad without dovetail fixation

¹ This category doesn't exist anymore in the 8th edition of UIC Leaflet 541-3. A re-certification of the pads can be made in category F1 of the 8th edition.

Appendix I.2: Type 4.2 - Brake pads for passenger coaches (up to 200 km/h; organic brake pads)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Becorit	B 36 (2)	no. S1 and no. S2.1	Becorit	01.04.2006 (4) 01.02.2016 (5)	31.03.2016 (4) 31.01.2026 (5)
	B 66 (2)	no. S1 and no. S2.1	Wabtec	01.02.2013 (4) 13.07.2023 (5)	31.07.2023 (4) 31.01.2033 (5)
	V 30 (2)	no. S1 and no. S2.1	Becorit	01.04.1998 (4) 01.04.2008 (5) 17.01.2018 (5)	31.03.2008 (4) 31.03.2018 (5) 31.01.2028 (5)
Bremskerl	BK 7000 (2)	no. S1 and no. S2.1	Bremskerl	20.01.2010 (4) 16.07.2020 (5)	31.03.2020 (4) 31.12.2029 (5)
	BK 2100	no. S1 and no. S2.1	Bremskerl	07.08.2025 (4)	31.07.2035 (4)
CoFren	Frendo 2150 (2)	no. S1 and no. S2.1	Wabtec	01.02.2004 (4) 01.02.2014 (5) 01.02.2024 (5)	31.01.2014 (4) 31.01.2024 (5) 31.01.2034 (5)
	CoFren 2199 (2)	no. S1 and no. S2.1	Wabtec	01.02.2017	31.01.2027
Flertex	666 (2)	no. S1 and no. S2.1	Flertex SA	30.06.2008 (4) 30.06.2018 (5)	30.06.2018 (4) 30.06.2028 (5)
Frenoplast	FR 20H.2 (2)	no. S1 and no. S2.1	Frenoplast	01.04.1997 (4) 01.02.2017 (5)	31.01.2017 (4) 31.01.2027 (5)
Frimatrail (license Frenoplast)	FR 20H.2 (2) (Identical to Frenoplast FR 20H.2)	no. S1 and no. S2.1	Frimatrail	01.02.2019 (7)	31.01.2027 (7)
TENNECO (formerly Honeywell)	Jurid 878 (2)	no. S1 and no. S2.1	Honeywell	01.02.2004 (4) 01.02.2014 (5) 31.01.2024 (6) 31.07.2024 (6)	31.01.2014 (4) 31.01.2024 (5) 31.07.2024 (6) 31.01.2026 (6)
Knorr-Bremse	Propad 203 (2) (Formerly ICER 203)	no. S1 and no. S2.1	Knorr- Bremse	01.02.2014 (4) 26.01.2024 (5)	31.01.2024 (4) 31.01.2034 (5)
	ProPad 878 (Identical to Jurid 878)	no. S1 and no. S2.1	Knorr- Bremse	21.06.2021 31.01.2024 (6) 31.07.2024 (6)	31.01.2024 31.07.2024 (6) 31.01.2026 (6)
Puran	BZP 625 (2) & (6)	no. S1 and no. S2.1	Puran	01.08.2015 22.01.2025	31.07.2025 31.01.2035 (5)
	BZP 826	no. S1 and no. S2.1	Puran	19.01.2022	31.01.2032

- (1) Bench tests on a grey cast-iron brake disc and a cast steel brake disc
- (2) Bench test on a grey cast-iron brake disc
- (3) Bench test carried out on a cast steel brake disc;
- (4) First certification
- (5) Prolongation of certification
- (6) Extension of certification
- (7) Production under license

Appendix I.3: Type 4.3 - Brake pads for passengers coaches (up to 200 km/h ; sintered brake pads)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
CoFren	FrenDo SP 134/201 (1)	no. T1 and no. T2	FS – Trenitalia	15.11.2005 (4)	31.07.2025 (5) 31.01.2026 (5)
CoFren	CoFren SP 140FF/350 (1) & (2)	no. T1 and no. T2 no. S1 and no. S2.1	Wabtec	01.07.2017	30.06.2027
CoFren	CoFren SP167FF/350 (1)	no. T1 and no. T2	Wabtec	17.03.2023	30.06.2027
Bremsekerl	R502 (1)	no. T1 and no. T2	Bremsekerl	07.02.2024 (4)	31.01.2034 (4)

- (1) Bench test carried out on a brake disc of cast steel
(2) Bench test carried out on a brake disc of grey cast-iron
(4) First certification
(5) Prolongation of certification

Appendix I 4 Brake pads for passengers coaches (extreme winter conditions) (up to 200 km/h ; organic brake pads)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Frimatrail (license Frenoplast)	FR 20H.2 (2)	no. S3.1	Company Frimatrail	01.02.2019 (7)	31.01.2027 (7)

- (2) Bench test carried out on a brake disc of grey cast-iron
(7) Production under license

Appendix I 5 *Reserved*

Appendix I 6 *Reserved*

Appendix I.7: Type A1 - Brake pads for wagons
 (up to 120 km/h; deceleration max. 0,88 m/s²; 6,3 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Puran	PRF1125-CRH5/PR34S	no. A1	Company Puran	18.01.2023	31.01.2033

Appendix I.8.1: Type B1 – Brake pads on discs for motor units
 (up to 160 km/h; wheel mounted discs; 7,9 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
BECORIT (Wabtec)	FP94	N° B1	BECORIT	04/07/2024	31/07/2034

Appendix I.8.2: Type B2 – Brake pads discs for motor units
 (up to 160 km/h; wheel mounted discs; 9,9 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.9.1: Type C1 – Brake pads discs for motor units
 (up to 200 km/h; wheel mounted discs; 12,3 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.9.2: Type C2 – Brake pads discs for motor units
 (up to 200 km/h; wheel mounted discs; 15,4 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Becorit	BMBS F570*	no. C2	Wabtec	31.05.2024	31.05.2034

Appendix I.9.3: Type C3 – Brake pads discs for motor units
 (up to 200 km/h; wheel mounted discs; 18,5 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.10.1: Type D1 – Brake pads discs for motor units
 (up to 250 km/h; axle mounted discs; max. 15,7 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
CoFren	SP140RE/T36	no. D1	Wabtec	16.10.2022	15.10.2032

Appendix I.10.2: Type D2 - Brake pads on discs for motor units
 (up to 250 km/h; wheel mounted discs, max. 25,3 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Becorit	BMBS F570*	no. D2	Wabtec	01.11.2020	31.10.2030
CoFren	SP140RE/T36	no. D2	Wabtec	16.10.2022	15.10.2032

Appendix I.11: Type E1 – Brake pads on discs for motor units
 (up to 300 km/h; wheel mounted discs; max. 27,8 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Knorr- Bremse	UltraPad 127	no. E1	Knorr- Bremse	06.07.2023	05.07.2033

Appendix I 12.1: Type F1 – Brake pads on discs for motor units
 (up to 350 km/h; axle mounted discs; max. 23,6 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
CoFren	T30S	no. F1	Wabtec	01.07.2012 07.07.2022	30.06.2022 06.07.2032

Appendix I.12.2: Type F2– Brake pads on discs for motor units
 (up to 350 km/h; axle mounted discs; max. 28,4 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.12.3: Type F3 – Brake pads on discs for motor units
 (up to 350 km/h; wheel mounted discs; max. 33,1 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.13: Type G1 – Brake pads on discs for motor units
 (up to 400 km/h; wheel mounted discs; max. 37 MJ)

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Request by	Date of certification	End of validity of the certification
Currently no certified brake pads					

Appendix I.14: Reserved

Appendix I.15 Preliminary approval – Brake pads which have undergone the actual test programmes with success, and which may undergo in-service tests in view of obtaining the definitive approval

Manufacturer/ Name of product	Designation of type of brake pad	Test program(s) performed	Application	Date of preliminary approval	End of validity of the preliminary approval
Alstom Flertex	F725	no. B1	Motor units up to 160 km/h	07.07.2022	31.01.2026
	GT8-03	no. D1 and no. D2	Motor units up to 250 km/h	07.07.2022	31.01.2026
		C3	Motor units up to 200 km/h	23.01.2025	31.01.2027
	GT10-03	no. C2	Motor units up to 200 km/h	30.08.2022	31.01.2026
	F726-1	no. B2	Motor units up to 160km/h	31.01.2024	31.01.2026
	GT10-20	F1, F3, C2	Motor units up to 200 km/h High Speed up to 350km/h	23.01.2025	31.01.2027
	707	no. S1.1 and no. S2.1	Coaches up to 200 km/h	20.03.2018	31.01.2026
Becorit	FP 94	no. C3	Motor units up to 200 km/h	06.07.2023	05.07.2025
	FP 138	no. B2	Motor units up to 160km/h	06.07.2023	05.07.2025
Bremskerl	R502	no. T1 and no. T2	Coaches up to 200 km/h	19.01.2022	18.01.2024
Puran	PRF1113- CRH5/PR34S	no. D1 and no. D2	Motor units up to 250 km/h	19.01.2022	18.01.2024
	PRF1113- CRH5/PR34S	no. C3	Motor units up to 200 km/h	18.01.2023	17.01.2025
	PRF1118-PRF01	no. T1 and no. T2	Coaches up to 200 km/h	14.01.2021	13.01.2023
	PRF1125- CRH5/PR34S	no. A1	wagons up to 120km/h	16.01.2020	15.01.2022
MIBA FRICTEC	MD610	no. T1 and no. T2	Coaches up to 200 km/h	04.07.2024	04.07.2026
	MD620	no. A1	Wagons up to 120km/h (SS)	16.07.2025	16.07.2027
FANY	718-3	no. S1.1 and no. S2.1	Coaches up to 200 km/h	20/02/2024	31/01/2026

Appendix I 16: Right of continued use – brake pads no longer authorised for use on new-build or retrofitted vehicles, but which may continue to be operated on existing vehicles to which they are already fitted.

Manufacturer/ Name of product	Désignation of type of brake pad	Test program(s) performed	Application	Date of certification	End of validity of the certification
Jurid	869	no. 2 (200 km/h) Acc. to Leaflet 541-3, 2 nd edition	Passenger coaches up to 200 km/h	01.01.1984	31.12.2005
Becorit	918 (1)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.03.1986	31.12.2005
Ferodo	ID 425L (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.01.1989	31.12.2005
Bremserl	5818 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.01.1989	31.12.2005
Bremserl	6792 (1)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.01.1989	31.12.2005
Jurid	877 (1)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.01.1989	31.12.2005
Frendo	2126 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.06.1990	31.12.2005
Faist Licence Textar	T 543 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 3 rd edition	Passenger coaches up to 200 km/h	01.01.1993	31.12.2005
Icer	918 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.01.1994	31.12.2005
Flertex	664 HD (3)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.03.1995	28.02.2005
Rona	918 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.04.1996	28.02.2006
Textar	T 550 (2)	no. 2 (200 km/h) no. 3 (200 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.04.1997	31.03.2007
Bremserl	BK 2000 (2)	no. 2 (200 km/h) and no. 3 (200 km/h + 140 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.01.1999 (4) 12.12.2008 (5)	31.12.2008 (4) 12.12.2013 (5)
Bremserl	BK 7699 (1)	no. 2 (200 km/h) and no. 3 (200 km/h + 140 km/h) Acc. to Leaflet 541-3, 4 th edition	Passenger coaches up to 200 km/h	01.01.1999 (4) 12.12.2008 (5)	31.12.2008 (4) 12.12.2013 (5)
Flertex Sinter	G 35 (3)	no. 5A (7th edition of Leaflet) and no. S2.1	High speed trains up to 320/330 km/h	30.06.2008	30.06.2018
Knorr-Bremse	ICER 106 (ProPad 106) (2)	no. S1 and no. S2.1	Passenger coaches up to 160 km/h	01.02.2011	31.01.2022

- (1) Bench tests on a grey cast-iron brake disc and a cast steel brake disc
(2) Bench test on a grey cast-iron brake disc
(3) Bench test carried out on a cast steel brake disc;
(4) First certification
(5) Extension of certification

Notes concerning updates:

Date of update	Body in charge	Decision
07.04.2004	Steering Body of CTR	Creation of an Internet site UIC for approved vehicle components; removal of the corresponding appendices in UIC Leaflets
01.09.2004	SC Braking and Running gear Session of July 2004	First publication on Internet site of UIC of the tables extracted the UIC leaflet 541-3, 5th edition, Appendix I by supplementing them by Brake pads approved since the last edition of the leaflet (4th edition) in Appendix I: Becorit V30, Bremskerl 2000, Bremskerl 7699, Italian Brakes FS 5M1, FrenDo 2150, Jurid 878
15.09.2005	SG 5 Braking and Running gear Session of July 2005;	<u>Appendix I 4.2:</u> 1.) topic. 7.2 – Jurid 878 suspended Homologation until a nondefinite date; 2.) At the time of the revision, the following modifications were carried out: - column 3, the programs were carried in the table starting from Brake pads "Róna 918" for all the following pads - adaptation of the structure of the table: additional mention of the edition of the leaflet in the column "Programme test"; - for the brake pad "Textar T 550", the date of homologation 01.07.1997 was corrected to the 01.04.1997 and the end of the validity adapted to the 31.03.2007 - for the brake pad "Bremskerl 7699", the reference (1) was added - for the brake pad "Italian Brakes FS 5M1", the reference (1) was corrected in reference (2);
15.11.2005	SG 5 Braking and Running gear Session of July 2005; with later written approval	<u>Appendix I 4.3:</u> o. d. j. 3.9 – Certification FrenDo SP 134/201
01.01.2006	SG 5 Braking and Running gear Session of July 2005 Point 3.4	<u>Appendix I 4.2:</u> Expiry of the certification and removal of Brake pads below: : JURID 869, BECORIT 918, FERODO ID 425L, BREMSKERL 5818, BREMSKERL 6792, JURID 877, BREMSKERL 7240, FRENDO 2126, FAIST LICENCE TEXTAR T 543, ICER 918, FLERTEX 664 HD
15.04.2006	SG 5 Braking and Running gear Session of January 2006 Point 3.4 February 2006: Audit with inquiry 14 of SG5,	<u>Appendix I 4.2:</u> January 2006: admission expires, brake pad "RONA 918" is removed; February 2006: Audit to. Honeywell; Jurid 878 again admitted;
15.05.2006	SG 5 Braking and Running gear Session of march 2006 ; point 2.1 ; 2.2	<u>Appendix I 1.1:</u> Certification of Bremskerl BK 3000 <u>Appendix I 4.2:</u> Certification of Becorit B36
12.03.2007	SG 5 Braking and Running gear Session of January 2007 point : 3.4.1; 3.4.2; 7.2	<u>Appendix I 1.1:</u> Séparation in Appendix 1.1a and Appendix 1.1b <u>Appendix I 1.1.b:</u> Certification FrenDo SP 201/320 SI <u>Appendix I 4.2:</u> Renewal of admission Frenoplast FR 20H.2; Expiration of admission and removal of Textar T550 The text of the references (1), (2) and (3) was specified; The references (4) and (5) were added <u>General:</u>
01.04.2008	SG 5 Braking and Running gear Session of January 2008 point : 3.4.4	<u>Appendix I 4.2:</u> Renewal of admission Becorit V30
01.07.2009	SET 7 „Braking“ Session of June 2008; point 3.3.6;	<u>Appendix I 1.1.a:</u> Certification Ferodo I/D 1005 <u>Appendix I 4.2:</u> Renewal of admission Bremskerl BK 2000; Renewal of admission Bremskerl BK 7699; Certification Flertex 666; Certification Cosid 828; Certification FT G35
20.09.2009	Error correction:	<u>Appendix I 1.1.a:</u> Certification of Ferodo I/D 1005 deleted; <u>Appendix I 1.1.b:</u> Certification of Ferodo I/D 1005 introduced
12.04.2010	SET 7 „Braking“ Session of January 2010 point 3.2.n	<u>Appendix I 4.2:</u> Renewal of admission of Italian Brakes IB FS5M1 Certification of Bremskerl BK 7000

Date of update	Body in charge	Decision
06.05.2010		<u>Appendix I 4.2:</u> Correction Bremskerl BK2000, BK7699 (only English version) Different format adaptations
11.07.2010		<u>Appendix I 4.2:</u> Correction Bremskerl BK2000, BK7699
20.01.2011	SET 7 „Braking“ Session of January 2010 point 2.9	New <u>appendix I 6</u>
30.01.2011	SET 7 „Braking“ Session of January 2011 point 3.2.2	<u>Appendix I 4.2:</u> Certification of ICER 106 from ICER Brakes
30.01.2011		Deleting of references according to which Leaflet edition the test programs were performed. Tests are always performed according to test programs of valid edition of Leaflet
05.02.2012	SET 7 „Braking“ Session of January 2012 point 4.3.4	Certification for brake blocks Italian Brakes FS5M1 withdrawn until further notice
01.07.2012	SET 7 „Braking“ Session of June 2012 point 3.2.1	<u>Appendix I 1.2:</u> Certification of CoFren T30S from Wabtec
01.02.2013	SET 7 „Braking“ Session of January 2013 point 3.2.1	<u>Appendix I 4.2:</u> Certification of Becorit B 66 from Wabtec
01.02.2014	SET 7 „Braking“ Session of January 2014 points 3.2.1, 3.2.2 & 3.2.3	<u>Appendix I 4.2:</u> Prolongation of certification of FrenDo 2150 from Wabtec Prolongation of certification of Jurid 878 from Honeywell Certification of ICER 203 from ICER Brakes <u>Appendix I 6:</u> Introduction of Bremskerl BK 2000 and BK 7699 after expiry of their certification
01.07.2014	SET 7 „Braking“ Session of June 2014 point 3.2.1	<u>Appendix I 1.1a:</u> Certification of Puran BZP 625
01.08.2015	SET 7 „Braking“ Session of July 2015 point 3.2.5, 3.2.6 & 3.2.1 E-mail-inquiries from 10/07/2015 and 08/07/2015 respectively	<u>Appendix I 4.3:</u> Prolongation of certification of CoFren SP 134/201 from Wabtec <u>Appendix I 4.2:</u> Introduction of CoFren SP 140FF/350 from Wabtec Extension of certification of Puran BZP 625
01.02.2016	SET 7 „Braking“ Session of January 2016 point 3.2.3	<u>Appendix I 4.2:</u> Prolongation of certification of Becorit B 36
01.07.2016	SET 7 „Braking“ Session of June 2016 points 3.2.2 & 3.2.3	<u>Appendix I 1.1a:</u> Prolongation of certification of Bremskerl 3000 <u>Appendix I 2.2:</u> Certification of Puran PRF 1103
01.02.2017	SET 7 „Braking“ Session of January 2017 points 3.2.1, 3.2.3 & 3.2.4	<u>Appendix I 4.2:</u> Certification of CoFren 2199 <u>Appendix I 1.1b:</u> Prolongation of certification of CoFren SP 201/320 SI <u>Appendix I 4.2:</u> Prolongation of certification of Frenoplast FR 20H.2
01.05.2017	New edition of Appendix I after publication of the 8th edition of the Leaflet	<u>Appendix I 2:</u> Certification of CoFren 2199 <u>Appendix I 1b:</u> Prolongation of certification of CoFren SP 201/320 SI <u>Appendix I 2:</u> Prolongation of certification of Frenoplast FR 20H.2 <u>Appendix I 15:</u> Preliminary approval of Becorit F 570* BMBS Preliminary approval of TYSJ TS588B Preliminary approval of TYSJ TS399B
01.07.2017	SET 7 „Braking“ Session of June 2017 points 3.2.1, 3.2.3, 3.2.4	<u>Appendix I 3:</u> Certification of CoFren SP 140FF/350 <u>Appendix I 1.2:</u> Certification of Puran CRH5/PR34S <u>Appendix I 1.2:</u> Certification of TYSJ TS399B
01.02.2018	SET7 „Braking“ Session no. 235 of January 2018 point: 3.2.1 & 3.3.6	<u>Appendix I 2:</u> Renewal of admission Becorit V30 <u>Appendix I 15:</u> Preliminary admission of Flertex 707
01.07.2018	SET7 „Braking“ Session no. 236 of June 2018 point: 3.2.1	<u>Appendix I 1.2:</u> Renewal of admission Flertex 666

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01.02.2019	SET7 "Braking" Session no. 237 of January 2019 point: 3.2.2	<u>Appendix I.2 / I.4:</u> Admission Frimatrail FR 20H.2 (license Frenoplast) <u>Appendix I.16</u> Inscription of Flertex Sinter G35 following expiration of admission
12.04.2019	SET7 "Braking" E-mail-inquiries from 08.03.2019	<u>Appendix I.2</u> Withdrawal of Cosid 828
26.08.2019	SET7 "Braking" Session no. 237 of January 2019 point: 3.2.2	<u>Appendix I.15</u> Extension of preliminary approval of Becorit F 570* BMBS
	SET7 "Braking" Session no. 238 of July 2019 point: 3.3	<u>Appendix I.15</u> Extension of preliminary approval of Federal Mogul Jurid 707 <u>Appendix I.2</u> Extension of certification of Bremskerl BK7000 <u>Appendix I.1.2</u> Certification of Cofren CFSP 150/T42
		<u>Appendix I.15</u> Extension of preliminary approval of Puran BZP 826
24.01.2020	SET7 "Braking" Session no. 239 of January 2020 point: 3.2.1. & 3.2.3.	<u>Appendix I.2</u> Extension of certification of Bremskerl BK7000 <u>Appendix I.15</u> Preliminary certification of Puran PRF1125-CRH5/PR34S
20.07.2020	SET7 "Braking" Session no. 240 of July 2020 point: 3.2.1., 3.2.3., 3.2.20, 3.2.21. & 3.3.6.	<u>Appendix I.2</u> Extension of certification of Bremskerl BK7000 <u>Appendix I.15</u> Preliminary certification of Bremskerl BK2100 Withdrawal of Flertex 725 Withdrawal of Flertex 726-1 Extension of preliminary approval of Flertex 707
15.10.2020	SET7 "Braking" Session no. 240 of July 2020 point: 3.2.4.	<u>Appendix I.2:</u> Certification of Tianyshangjia TS 588B
02.11.2020	SET 7 „Braking“ Session no. 240 of July 2020 point 3.2.5 E-mail-inquiries from 21/07/2020	<u>Appendix I.10.2:</u> Certification of Becorit BMBS F570*
04.12.2020	SET 7 „Braking“ Session no. 240 of July 2020 point 3.2.14. E-mail-inquiries from 29/10/2020	<u>Appendix I.15:</u> Preliminary approval of Becorit FP94
28.01.2021	SET7 "Braking" Session no. 241 of January 2021 point: 3.2.2., 3.2.8., 3.2.9., 3.3.14.	<u>Appendix I.1.1a:</u> Certification of Puran BZP 826 <u>Appendix I.2</u> Extension of certification of ICER 106 <u>Appendix I.15</u> Preliminary certification of Puran PRF1118-PRF01 Preliminary certification of Knorr-Bremse OptiPad 127
21.06.2021	SET7 "Braking" Session no. 241 of January 2021 point: 3.2.1 E-mail-inquiries from 28/05/2021	<u>Appendix I.2 :</u> Certification of Knorr-Bremse ProPad 878 by identity check with the Jurid 878
09.07.2021	SET7 "Braking" Session no. 242 of July 2021 point: 3.2.1 and 3.2.4.	<u>Appendix I.15</u> Extension of preliminary approval of Flertex 707 <u>Appendix I.2 :</u> Certification of Federal Mogul Jurid 707 Extension of certification of ICER 106
31.01.2022	SET7 "Braking" Session no. 243 of January 2022 point: 3.2.1, 3.2.2, 3.2.3, 3.2.4, 3.2.6, 3.2.9, 3.3.1.	<u>Appendix I.2 :</u> Certification of Puran BZP 826 Certification of Knorr-Bremse Ultrapad 707 by identity check with Jurid 707 Withdrawal of ICER 106 <u>Appendix I.15 :</u> Preliminary certification of Puran PRF1113-CRH5/PR34S Preliminary certification of Bremskerl R502 Preliminary certification of Cofren SP140RE/T36 Extension of preliminary approval of Flertex 707
11.03.2022	Session no. 243 of January 2022 point: 3.2.3., 3.2.8.	<u>Appendix I.15 :</u> Preliminary certification of Bremskerl R503 <u>Appendix I.16 :</u> Inscription of ICER 106 limited to 160km/h

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25.07.2022	Session no. 244 of July 2022 point: 3.2.3, 3.2.4, 3.2.5, 3.2.7, 3.3.4, 3.3.5	<u>Appendix I.2:</u> Withdrawal of Cofren T30S <u>Appendix I.15:</u> Preliminary certification of Alstom Flertex F725 Preliminary certification of Alstom Flertex Sinter GT8-03 Prolongation of preliminary certification of Bremskerl BK2100 Prolongation of preliminary certification of Becorit FP94 <u>Appendix I.12.1:</u> Prolongation of certification of Cofren T30S
30.08.2022	Session no. 244 of July 2022 point: 3.2.6	<u>Appendix I.15:</u> Preliminary certification of Alstom Flertex Sinter GT10-03
24.10.2022	Session no. 244 of July 2022 point: 3.2.1 and E-mail-inquiry from 30/09/2021	<u>Appendix I.10.1 and I.10.2:</u> Certification of Cofren SP140RE/T36
24.01.2023	SET7 "Braking" Session no. 245 of January 2023 point 3.2.1, 3.2.5, 3.2.6	<u>Appendix I.7:</u> Certification of Puran PRF1125-CRH5/PR34S <u>Appendix I.2:</u> Extension of certification of Becorit B66 <u>Appendix I.15:</u> Preliminary certification of Puran PRF1113-CRH5/PR34S
21.03.2023	SET7 "Braking" Session no. 245 of January 2023 point 3.2.9 and E-mail-inquiry from 21/02/2023	<u>Appendix I.3:</u> Certification of Cofren SP167FF/350
24.07.2023	SET7 "Braking" Session no. 246 of July 2023 point 3.2.5, 3.3.14, 3.2.3, 3.3.11	<u>Appendix I.2:</u> Renewal of certification of Becorit B66 <u>Appendix I.11:</u> Certification of Knorr-Bremse UltraPad 127 <u>Appendix I.15:</u> Preliminary certification of Becorit FP 94 Prolongation of preliminary certification of Alstom Flertex Sinter GT8-03
13.10.2023	SET7 "Braking" Session no. 246 of July 2023 point 3.2.4	<u>Appendix I.15:</u> Preliminary certification of Becorit FP 138
05.03.2024	SET7 "Braking" Session no. 247 of Jan. 2024	<u>3.2.1 – KB Propad 203</u> <u>3.2.2 – Bremskerl R502</u> <u>3.2.4 – Flertex F726-1</u> <u>3.2.6 – Fany 718-3</u> <u>3.2.8 J878 & Propad 878</u> <u>3.3.1 – Flertex 707</u> <u>3.3.3 – Bremskerl R503</u> <u>3.2.3 – Frendo 2150</u> <u>3.2.10 – BMBS F570*</u>
01.08.2024	SET7 "Braking" Session no. 248 of Jul. 2024	<u>3.1.5 – Frendo 2150</u> <u>3.2.1 – MIBA MD610</u> <u>3.3.5 – FLERTEX F707</u> <u>3.3.6 – FLERTEX GT10-03</u>
01.04.2025	SET7 "Braking" Session no. 249 of Jan. 2025	<u>3.3 FLERTEX GT10-03, F707, GT8-03, GT10-20, F725</u> <u>3.3 Puran BZP 625</u>
17.07.2025	SET7 "Braking" Session no. 250 of Jul. 2025	<u>3.2.1 MIBA FRICTEC MD620</u> <u>3.3.8 BREMSKERL 2100</u> <u>3.4.5 COFREN FP134/201</u>