

Declaration of Properties				
No. PCC_560_04				
1) Unique identifying code:	ETA – 14/118-verze 02			
2) Product name:	NEW-THERM® systém			
3) Intended use	(ETICS) External contact thermal insulation of concrete or masonry walls			
4) Manufacturer	PCC MORAVA-CHEM s.r.o. Leoše Janáčka 798/20, 737 01 Český Těšín, Czech Republic, IČ: 476 69 063			
5) Technical specifications:	ETA 14/0118, issued by TSUS, n.o., Bratislava, NO 305/2011			
6) Declared properties (only valid for system composition according to Table 1)				
Basic characteristic	Property	Harmonized technical specifications	Assessment system	Notified body
Reaction to fire	reaction to fire class C-s2, d0, see Table 2	ETAG 004:2013	1	Není relevantní
Reaction to fire	reaction to fire class B-s2, d0, see Table 3	ETAG 004:2013	1	
Watertightness	satisfactory	ETAG 004:2013	2+	
Absorption capacity	< 0.5 kg/m ² after 24 h see Table 4	ETAG 004:2013	2+	
Resistance to mechanical damage	Category III see Table 5	ETAG 004:2013	2+	
Water vapour permeability	≤ 2.0 see Table 6	ETAG 004:2013	2+	
Hazardous substances	contains no hazardous substances, see the manufacturer's declaration	ETAG 004:2013	-	
Fastening strength (transverse feed)	NPD	ETAG 004:2013	2+	
Basic layer adherence to insulation product	> 0,08 MPa – see Table 7	ETAG 004:2013	2+	
Bonding compound adherence to backing / insulation product	satisfactory – see Table 8	ETAG 004:2013	2+	
Wind load resistance	see Table 10	ETAG 004:2013	2+	
Minimal bonded surface of adhesives to substrate	see Table 9	ETAG 004:2013	2+	
Thermal resistance	thermal insulator thickness: 20–200 mm	ETAG 004:2013	2+	
	insulator thermal conductivity factor: $\lambda d = 0.022 \text{ W/m.K}$	ETAG 004:2013		

Tato verze nahrazuje: PCC_560_03

PCC MORAVA-CHEM, s.r.o., Leoše Janáčka 798/20, 737 01 Český Těšín
 Vyhrazujeme si právo provést změny, které jsou výsledkem technického pokroku.

Tabulka 1: ETICS composition

Fastening method	Components	Technical specification / description		Consumption [kg/m ²]	Thickness [mm]
Bonded ETICS with additional anchoring / mechanically fixed ETICS with additional bonding	1.1 Insulation product				
	Hard polyurethane boards for building industry TPD-PUR 30/40				
	PUR-EN 13165-T2-DS(70,90)4-CS(10/Y)150-TR150-WL(T)3-WL(P)0,5-WS(P)0,5-MU(20)	declared thermal conductivity factor value $\lambda_d = 0.022$ W/mK Reaction to fire: class E	EN 13165		20 - 200
	1.2 Bonding compound				
	NEW-THERM ST04	bonded area min. 40 %	cement-based compound	2 – 5,5 (dry mixture)	10 – 20
	NEW-THERM ST04/FS	bonded area min. 40 %	cement-based compound	4 – 6 (dry mixture)	10 - 20
	1.3 Dowels for fastening insulation boards				
	Trade name	Description Plate stiffness/ load resistance of the anchor plate		Plate diameter (mm)	Characteristic resistance in substrate stated in
	Ejothem STR U Ejothem STR U 2G	Screwed-in plastic anchor with steel nail 0,6 kN/mm/2,08kN Use of category: A, B, C, D, E		60	ETA-04/0023
	Ejothem NTK U	Nail-in plastic anchor with polyamide nail and plastic head 0,5kN/mm/1,44kN Use of category: A, B, C		60	ETA-07/0026
	Ejothem NT U	Nailed-in plastic anchor with steel nail 0,6kN/mm/2,43kN Use of category: A,B,C		60	ETA-05/0009
	BRAVOLL PTH 60/8 BRAVOLL PTH KZ	Nailed-in plastic anchor with polyamide (PTH –KZ)(steel-PTH-KZ) nail and plastic head 0,4kN/mm/1,6kn Use of category: (Bravoll PTH 60/8) A,B (Bravoll PTH-KZ) A,B,C,D		60	ETA-05/0055
	BRAVOLL PTH-S	Screwed-in plastic anchor with steel screw 0,9kN/mm/2,6kN Use of category: A,B,C,D,E		60	ETA-08/0267
	BRAVOLL PTH-SX	Nailed-in plastic anchor 0,5kN/mm/1,8kN Use of category: A,B,C,D,E		60	ETA-10/0028
BRAVOLL PTH-X	Nailed-in plastic anchor with polyamide nail 0,6kN/mm/1,5kN Use of category: A,B,C,D		60	ETA-13/0951	
BRAVOLL PTH-EX	Nailed-in plastic anchor with steel nail 0,6kN/mm/1,4kN Use of category: A,B,C,D		60	ETA-13/0951	
KOELNER KI8M	Nailed-in plastic anchor with steel nail 1,21kN/mm/2,32kN Use of category:A,B,C		60	ETA-06/191	
KOELNER TFIX-8M	Nailed-in plastic anchor with steel nail 1,0kN/mm/1,75kN Use of category:A,B,C		60	ETA-07/336	

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	KOELNER KI-10	0,5kN/mm/2,1kN Use of category: A,B,C,D,E	60	ETA 07/0291
	KOELNER KI-10M	0,4kN/mm/2,6kN Use of category: A,B,C	60	ETA 07/0291
	KOELNER TFIX – 8S KOELNER TFIX – 8ST	Nailed-in plastic anchor with steel nail 0,6kN/mm/2,04kN Use of category: A,B,C,D,E	60	ETA 11/0144
	FISCHER Termoz 8 SV	Screwed-in anchor (polyamide) with screw 1,1kN/mm/2,13kN Use of category: A,B,C,D,E	60	ETA-06/0180
	FISCHER Termofix CF 8	Nailed-in plastic anchor with steel nail 0,5kN/mm/1,65kN Use of category: A,B,C	60	ETA-07/0287
	FISCHER termoz CN 8	Screwed-in anchor (polyamide) with screw 0,4kN/mm/1,6kN Use of category: A,B,C,D	60	ETA 09/0394
	FISCHER termoz PN 8	0,4kN/mm/1,6kN Use of category: A,B,C	60	ETA 09/0171
	FISCHER termoz CS 8	0,4kN/mm/1,6kN Use of category: A,B,C,D,E	60	ETA 14/0372
	FISCHER Termoz 8U FISCHER Termoz 8UZ	Screwed-in plastic anchor with steel screw and plastic head 0,5 kN/mm/2,45kN Use of category: A,B,C,D,E	60	ETA-02/0019
	EJOT H1 eco	Nailed-in plastic anchor with steel nail 0,6kN/mm/1,4kN Use of category: A,B,C	60	ETA 11/0192
	WK THERM S	0,6kN/mm/4,3kN Use of category:A,B,C,D,E	60	ETA 13/0724
	WK THERM Ø8	0,6kN/mm/4,3kN Use of category:A,B,C	60	ETA 11/0232
	FIXPLUG Ø8	0,6kN/mm/1,7kN Use of category:A,B,C	60	ETA 11/0231
	FIXPLUG Ø10	0,6kN/mm/1,5kN Use of category:A,B,C	60	ETA 11/0231
	ECO DRIVE	0,6kN/mm/2,8kN Use of category: A,B,C,D,E	60	ETA 13/0107
1.4 Backfilling compound for basic layer				
	Components	Technical specification / description	Consumption [kg/m ²]	Thickness [mm]
	NEW-THERM ST04	cement-based compound	4,6kg (dry mixture)	4
	NEW-THERM ST04/FS	cement-based compound	5,4 kg (dry mixture)	4
1.5 Basic layer reinforcement				
	R 131 A101 R117 A 101 SSA-1363-145 SSA-1363-160	Glass fibre meshes	≥ 145 g/m ² ≥ 160 g/m ² ≥ 145 g/m ² ≥ 160 g/m ²	1,15 -

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1.6 Penetration coating					
ARMASIL PUTZGRUND	For silicon plaster stuffs acc. to 1.7	Silicon	0,15		
NOVALITH PUTZGRUND	For silicate plaster stuffs acc. to 1.7	silicate	0,30		
1.7 Konečná povrchová úprava					
ARMASIL DECKPUTZ	Max. grain size: 1,5 / 2 mm	Silicon	2,5 / 3,3		Dle velikosti zrna
NOVALITH DECKPUTZ	Max. grain size: 1,5	silicate	2,5		

Tabulka 2: Reaction to fire test for ETICS

Configurace 1	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhezice: NEW-THERM ST04 TPD PUR 30/40 (EN 13165) Thickness 20 - 100 mm Reaction to fire: E density 32-35 kg/m ²	Base coat: (4,6 ± 0,6) % Finishing coat: (6,35 ± 0,6) %	TPD PUR 30/40: Declared by manufacturer Adhesive/base coat: 0% Finising coat: 0%	C - s2, d0
Base coat: NEW-THERM ST04			
Glass fibre meshes: R 117 A101, R131 A101, SSA-1363-145, SSA-1363-160 145 g/m ² + 8% to 160 g/m ² + 8%			
Key coats: NOVALITH PUTZGRUND ARMASIL PUTZGRUND			
Finishing coast: NOVALITH DECKPUTZ ARMASIL DECKPUTZ			
Configurace 2	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhezice: NEW-THERM ST04 TPD PUR 30/40 (EN 13165) Thickness 101 - 200 mm Reaction to fire: E density 32-35 kg/m ²	Base coat: (4,6 ± 0,6) % Finishing coat: (6,35 ± 0,6) %	TPD PUR 30/40: Declared by manufacturer Adhesive/base coat: 0% Finising coat: 0%	No performace assessed
Base coat: NEW-THERM ST04			
Glass fibre meshes: R 117 A101, R131 A101, SSA-1363-145, SSA-1363-160 145 g/m ² + 8% to 160 g/m ² + 8%			
Key coats: NOVALITH PUTZGRUND ARMASIL PUTZGRUND			
Finishing coast: NOVALITH DECKPUTZ ARMASIL DECKPUTZ			

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Tabulka 3: Reaction to fire test for ETICS

Configurace 3	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhezice: NEW-THERM ST04/FS TPD PUR 30/40 (EN 13165) Thickness 20 - 80 mm Reaction to fire: E density 32-35 kg/m ²	Base coat: (1,0 ± 0,6) % Finishing coat: (4,7 ± 0,5) %	TPD PUR 30/40: Declared by manufacturer Adhesive/base coat: 0% Finising coat: 0%	B - s2, d0
Base coat: NEW-THERM ST04/FS			
Glass fibre meshes: R 117 A101, R131 A101, SSA-1363-145, SSA-1363-160 145 g/m ² + 8% to 160 g/m ² + 8%			
Key coats: NOVALITH PUTZGRUND			
Finishing coast: NOVALITH DECKPUTZ			
Configurace 4	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhezice: NEW-THERM ST04/FS TPD PUR 30/40 (EN 13165) Thickness 81 - 200 mm Reaction to fire: E density 32-35 kg/m ²	Base coat: (1,0 ± 0,6) % Finishing coat: (4,7 ± 0,5) %	TPD PUR 30/40: Declared by manufacturer Adhesive/base coat: 0% Finising coat: 0%	No performace assesse
Base coat: NEW-THERM ST04/FS			
Glass fibre meshes: R 117 A101, R131 A101, SSA-1363-145, SSA-1363-160 145 g/m ² + 8% to 160 g/m ² + 8%			
Key coats: NOVALITH PUTZGRUND			
Finishing coast: NOVALITH DECKPUTZ			
Configurace 5	Max. organic content	Flame retardant content	Euroclass according to EN 13501-1
Adhezice: NEW-THERM ST04/FS TPD PUR 30/40 (EN 13165) Thickness 20 - 200 mm Reaction to fire: E density 32-35 kg/m ²	Base coat: (1,0 ± 0,6) % Finishing coat: (6,35 ± 0,6) %	TPD PUR 30/40: Declared by manufacturer Adhesive/base coat: 0% Finising coat: 0%	No performace assesse
Base coat: NEW-THERM ST04/FS			
Glass fibre meshes: R 117 A101, R131 A101, SSA-1363-145, SSA-1363-160 145 g/m ² + 8% to 160 g/m ² + 8%			
Key coats: ARMASIL PUTZGRUND			
Finishing coast: ARMASIL DECKPUTZ			

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Tabulka 4: Water absorption of base coat

Base coat	Water absorption after 24 hours	
	< 0,5 kg/m ²	≥ 0,5 kg/m ²
NEW-THERM ST04	X	
NEW-THERM ST04/FS	X	

Water absorption of rendering systems

Base coat NEW-THERM ST04		Water absorption after 24 hours	
		< 0,5 kg/m ²	≥ 0,5 kg/m ²
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ zrno 1,5 mm	X	
	ARMASIL DECKPUTZ zrno 1,5 a 2 mm	X	

Base coat NEW-THERM ST04/FS		Water absorption after 24 hours	
		< 0,5 kg/m ²	≥ 0,5 kg/m ²
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ zrno 1,5 mm	X	
	ARMASIL DECKPUTZ zrno 1,5 a 2 mm	X	

Tabulka 5: Impact resistance of rendering systems

Base coat: NEW-THERM ST04		Single standard mesh
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	Category III
	ARMASIL DECKPUTZ	
Base coat: NEW-THERM ST04/FS		Single standard mesh
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	No performance assessed
	ARMASIL DECKPUTZ	

Tabulka 6: Water vapour of permeability of rendering systems

Base coat: NEW-THERM ST04		Equivalent air thickness (m)
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	≤ 2,0 (test results obtained with finishing coat NOVALITH DECKPUTZ, floated structure, particles size 1,5 mm: 0,23m
	ARMASIL DECKPUTZ	≤ 2,0 (test results obtained with finishing coat ARMASIL DECKPUTZ, floated structure, particles size 1,5 mm: 0,46m
Base coat: NEW-THERM ST04/FS		Equivalent air thickness (m)
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	No performance assessed
	ARMASIL DECKPUTZ	No performance assessed

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Tabulka 7: Bond strength between base coats NEW-THERM ST04 (NEW-THERM ST04/FS) and insulation product TPD-PUR 30/40

Base coat	Conditionings		
	Initial state	After the hygrothermal cycles (on the rig)	After the freeze/thaw cycles (on samples)
NEW-THERM ST04	≥ 0,08 MPa (base coat rupture)	≥ 0,08 MPa (cohesive rupture)	≥ 0,08 MPa (base coat rupture)
NEW-THERM ST04/FS	≥ 0,08 MPa (base coat rupture)	≥ 0,08 MPa (base coat rupture)	No performance assessed

Tabulka 8: Bond strength between adhesives NEW-THERM ST04 (NEW-THERM ST04/FS) and substrate/TPD-PUR 30/40

		Conditionings		
		Innitial state	48 h immersion in water + 2 h 23°C/50% RH	48 h immersion in water + 7 days 23°C/50% RH
NEW-THERM ST04	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	TPD-PUR 30/40	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa
NEW-THERM ST04/FS	Concrete	≥ 0,25 MPa	≥ 0,08 MPa	≥ 0,25 MPa
	TPD-PUR 30/40	≥ 0,08 MPa	≥ 0,03 MPa	≥ 0,08 MPa

Tabulka 9: Minimal bonded surface of adhesives NEW-THERM ST04 (NEW-THERM ST04/FS) to substrate

	Tensile strength perpendicular to the face of the insulation product
	≥ 150 kPa
NEW-THERM ST04	40%
NEW-THERM ST04/FS	40%

Bond strength of rendering systems after ageing

Base coat: NEW-THERM ST04		After 7 days immersion in water + 7 days 23°C/50%RH (on samples)	After freeze/thaw cycles
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	≥ 0,08 MPa	Not required
	ARMASIL DECKPUTZ		≥ 0,08 MPa
Base coat: NEW-THERM ST04/FS		After 7 days immersion in water + 7 days 23°C/50%RH (on samples)	After freeze/thaw cycles
Rendering systems: Base coat + key coat according to Clause 1.1 + finishing coats indicated hereafter:	NOVALITH DECKPUTZ	≥ 0,08 MPa	Not required
	ARMASIL DECKPUTZ		

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Tabulka 10: Failure loads of combination of anchors described in first line of table

Anchors for which the following failure loads apply	Trade name	Bravoll PTH 60/8	
		Bravoll PTH-KZ 60/8	
		Fisher termoz 8 SV	
		Fisher termofix CF 8	
		Fisher Termoz 8 U	
		Fisher Termoz 8 UZ	
		Fisher Termoz CN 8	
		Fisher Termoz PN 8	
		Fisher Termoz CS 8	
		Koelner KI-10	
		Koelner KI-10M	
		Koelner KI 8M	
		Koelner TFIX -8M	
		Koelner TFIX - 8S	
		Koelner TFIX - 8ST	
		Bravoll PTH - S	
		Bravoll PTH - SX	
		Ejotherm NT U	
		Ejotherm NTK U	
		Ejotherm STR U	
Ejotherm STR U 2G			
WK THERM S			
WK THERM Ø 8			
FIXPLUG Ø 8			
FIXPLUG Ø 10			
ECO-DRIVE			
	Plate diameter (mm)	≥ 60	
Characteristic of TPD-PUR 30/40 for which the following failure loads apply	Thickness (mm)	≥ 20	
	Tensile strength perpendicular to the face (kPa)	≥ 150	
Failure loads (N)	Anchors placed at the body of TPD-PUR 30/40 (pull – through test)	Rpanel:	Minimum: 280 Average: 300
	Anchors placed at joints of TPD-PUR 30/40 (static foam block test)	Rjoint:	Minimum: 111,7 Average: 120,5

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Failure loads of combination of anchors described in first line of table

Anchors for which the following failure loads apply	Trade name		EJOT H1 eco
			Koelner KI 8M
			Koelner TFIX -8M
			Koelner TFIX - 8S
			Koelner TFIX - 8ST
			Bravoll PTH - S
			Bravoll PTH - X
			Bravoll PTH - EX
			Ejotherm NT U
			Ejotherm STR U
			Ejotherm STR U 2G
			Fisher Termoz CS 8
			WK THERM S
			WK THERM Ø 8
			FIXPLUG Ø 8
FIXPLUG Ø 10			
ECO-DRIVE			
	Plate diameter (mm)		≥ 60
Charakteristiky TPD-PUR 30/40 pro které platí následující zatížení při porušení	Thickness (mm)		≥ 80
	Tensile strength perpendicular to the face (kPa)		≥ 150
Failure loads (N)	Anchors placed at the body of TPD-PUR 30/40 (pull – through test)	Rpanel:	Minimum: 600 Average: 610
	Anchors placed at joints of TPD-PUR 30/40 (static foam block test)	Rjoint:	Minimum: 511,7 Average: 570

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Characteristics of TPD-PUR 30/40

Trade name	TPD-PUR 30/40 Designation code according to EN 13 165: PUR-EN 13165-T2-DS(70,90)4-CS(10/Y)150-TR150-WL(T)3-WL(P)0,5-WS(P)0,5-MU(20)		
Reaction to fire according to EN 13501-1	Density (kg/m³)	Maximum thickness (mm)	Class
dw = 20 - 200 mm	32 - 35	200	E
Density according to EN 1602	32 - 35 kg/m ³		
Width, tolerancy	600 mm ± 5 mm		
Length, tolerancy	1000 mm ± 7,5 mm		
Thickness	PUR-EN 13165 - T2		
Squareness according to EN 824	max. 6 mm/m		
Flatness according EN 825	max. 5 mm		
Short term water absorption by partial immersion according EN 1609	max. 0,5 kg/m ³		
Long term water absorption by partial immersion according EN 12087	max. 0,5 kg/m ³		
Water vapour diffusion resistance factor (μ) according to EN 12086	20		
Dimensional specified stability temperature and under humidity / EN 1604	max. ± 2%		
Compressive strength according to EN 1602	min. 150 kPa		
Tensile test perpendicular to the faces according to EN 1607	min. 150 kPa		
Shear strenght according to EN 12090	min. 0,02 N/mm ²		
Shear modulus according to EN 12090	min. 1,0 N/mm ²		
Thermal resistance to be calculated according to the following formula	$R_{ins} = d_{ins} \times \lambda_{ins}$	R_{ins} is thermal resistance of TPD-PUR 30/40 d_{ins} is thickness of TPD-PUR 30/40 (m) λ_{ins} is max. 0,022 W / (m.K) (declared value)	

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Description and characteristics of the reinforcement R 117 A101

Trade name	Description	Alkalis resistance (ETAG 004 bod 5.6.7.1)			
		Residual strenght after ageing (N/mm)		Relative residual resistance: % (after ageing) of the strenght in the as delivered state	
		Warp	Weft	Warp	Weft
R 117 A101	Standard mesh: Mesh size 4,0x4,5 mm Area density: min. 145 kg/m ²	≥ 20		≥ 50	

Description and characteristics of the reinforcement R 131 A101

Trade name	Description	Alkalis resistance (ETAG 004 bod 5.6.7.1)			
		Residual strenght after ageing (N/mm)		Relative residual resistance: % (after ageing) of the strenght in the as delivered state	
		Warp	Weft	Warp	Weft
R 131 A101	Standard mesh: Mesh size 3,5x3,8 mm Area density: min. 160 kg/m ²	≥ 20		≥ 50	

Description and characteristics of the reinforcement SSA-1363-145

Trade name	Description	Alkalis resistance (ETAG 004 bod 5.6.7.1)			
		Residual strenght after ageing (N/mm)		Relative residual resistance: % (after ageing) of the strenght in the as delivered state	
		Warp	Weft	Warp	Weft
SSA-1363-145	Standard mesh Mesh size 3,6x4,3 mm Area density: min. 145 kg/m ²	≥ 20		≥ 50	

Description and characteristics of the reinforcement SSA-1363-160

Trade name	Description	Alkalis resistance (ETAG 004 bod 5.6.7.1)			
		Residual strenght after ageing (N/mm)		Relative residual resistance: % (after ageing) of the strenght in the as delivered state	
		Warp	Weft	Warp	Weft
SSA-1363-160	Standard mesh Mesh size 3,6x3,8 mm Area density: min. 160 kg/m ²	≥ 20		≥ 50	

Properties of the product specified in Table 1 are in conformity with the above stated properties. This declaration of properties is issued upon the exclusive responsibility of the manufacturer indicated herein. Signed on behalf and in the name of the manufacturer:

V Českém Těšíně....10/2016.....

PCC MORAVA - CHEM s.r.o.
Leoše Janáčka 798/20
737 01 ČESKÝ TĚŠÍN
(16)
Robin Ševeček

.....
hlavní techní
Robin Ševeček
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