

New Product Information

CTPM245 – The latest SILVERSTAR™ innovation

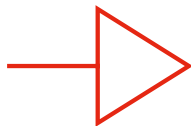
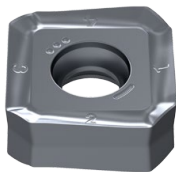
2017-02

General Information

Following the revision of grades in the P, M and K ISO ranges, the CTC5235 grade was also completely overhauled and repositioned. This means that we can offer a more harmonious overall concept in terms of indexable insert milling.

Product presentation

The new **SILVERSTAR™** grade **CTPM245** represents an expansion to the product range to incorporate high-alloy steels for which there is widespread market demand, for example in the energy, aerospace and general mechanical engineering sectors.



- Special optimised layer structure
- Ultra-modern post treatment process
- New PVD coating technology

Grade designation

The CTPM245 grade is suitable for machining high-alloy steels in the P45/M45 ISO ranges.

Ultra-modern post treatment process

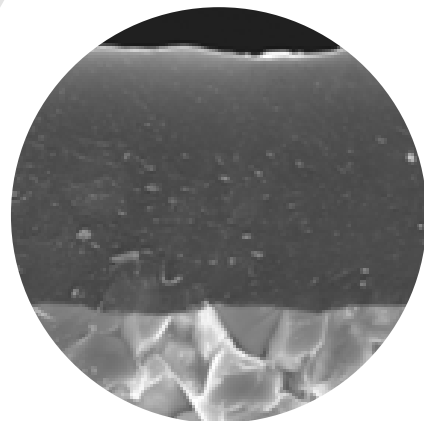
Optimised layer surface for low-friction chip removal.

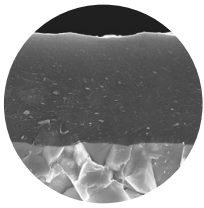
Special layer structure

Due to its adapted layer composition and optimised microstructure for maximum oxidation resistance, the CTPM245 grade is particularly suitable for dry machining.

New PVD coating technology

Modern PVD technology combined with a tried-and-tested high-performance substrate for outstanding high temperature properties.





Specifications:

Composition: Co 10.0%; other 1.5%; rest TC | Grain size: coarse | Hardness: HV₃₀ 1330 | Layer system: PVD TiAlTaN

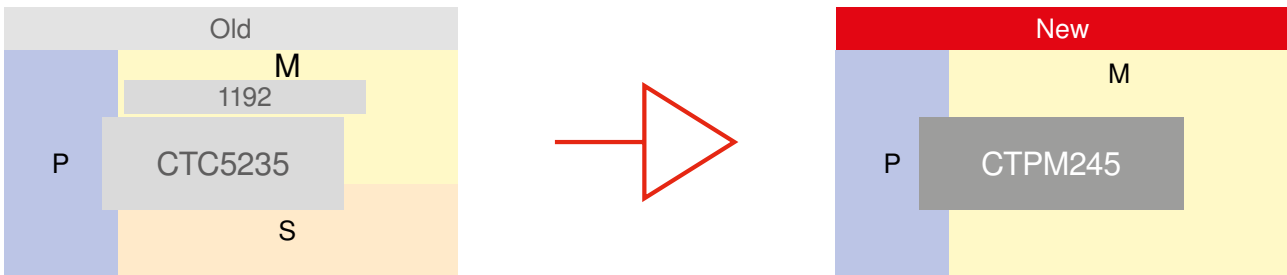
Recommended use:

Particularly suitable for the machining of high-alloy steels (martensitic).

Designation	ISO application range									Steel	Stainless steel		
	01	05	10	15	20	25	30	35	40	45	50	P	M
	CTPM245									▲	▲	▲	●

Properties of the CTPM245 grade

- High oxidation resistance → High cutting speed
- Extremely tough → Excellent process security
- Narrow tolerances → Extremely reliable



The CTPM245 grade will take the place of predecessor CTC5235 grade and the testgrade 1192. Please switch to using the CTC5240 grade for ISO-S materials (heat-resistant alloys, titanium materials, Inconel).

Chip groove

As part of the repositioning, the -M31 geometries are being replaced with -F50 geometries. The -F50 geometry has the same application range as the -M31 geometry; the difference is purely visual.

	Model	Machining			sectional illustration	f _z in mm
		fine	Medium	rough		
-F50 ▪ Positive geometry ▪ Low cutting forces ▪ For unstable clamping situations ▪ First choice for austenitic stainless steel materials		CTPM245	CTPM245	CTPM245		0,08–0,35
		CTPM245	CTPM245	CTPM245		
		CTPM245	CTPM245	CTPM245		
		CTPM245	CTPM245	CTPM245		

Changeover information

Production of the CTC5235 grade will cease no later than the end of August 2017.

The **SILVERSTAR™ CTPM245** grade is currently in stock.

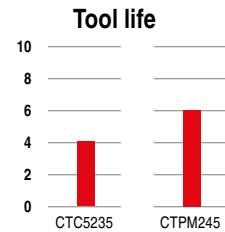
Success stories

Customer trial in China:

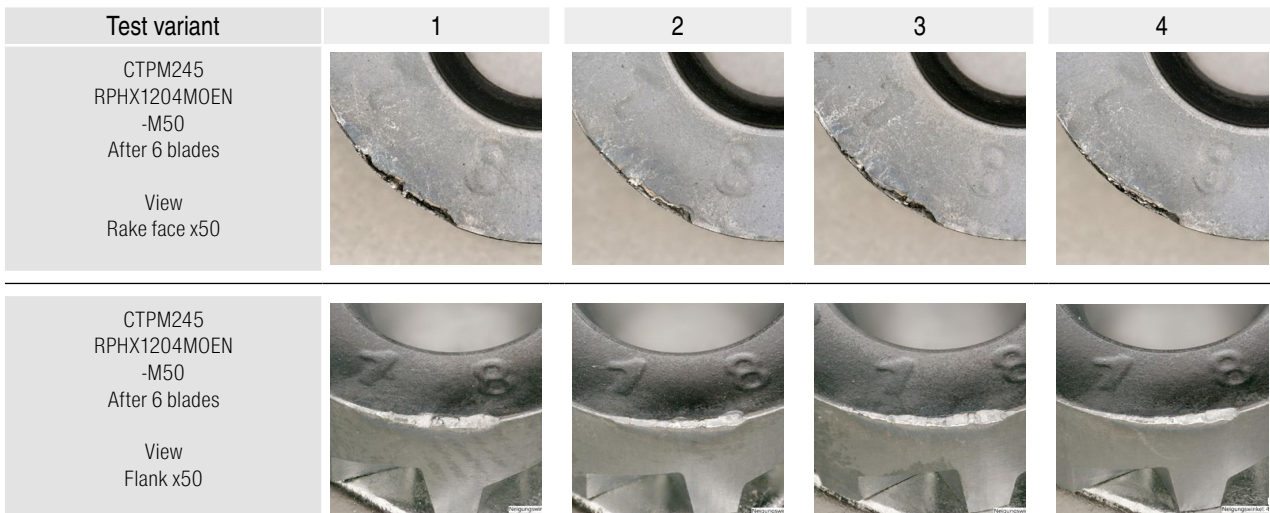
Comparison with the predecessor grade

Material: X12CrMoWVNbNi 0-11-5
Indexable insert: RPHX 1204MOSN-M50
Tool: A251.40.R.04-12-RS

Cutting data	CTC5235	CTPM245
v_c in m/min	226 - 251	226 - 251
f_z in mm	0,31 - 0,34	0,31 - 0,34
a_p in mm	1,0 - 1,5	1,0 - 1,5
Emulsion	no	no
Machining time per component in min	2,5	2,5
Tool life in pcs	3 - 4	6



Tool life increases from 3 – 4 to a consistent 6 pcs with the same cutting parameters.

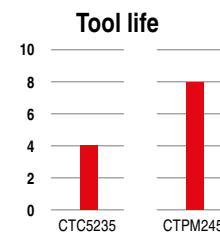


Customer trial in the USA:

Comparison with the predecessor grade

Material: B50A365
 Indexable insert: RPHX 10T3M4EN-M31
 Tool: A251.42.R.06-10-RS

Cutting data	CTC5235	CTPM245
v_c in m/min	350	330
f_z in mm	0,3	0,33
a_p in mm	4	4
Emulsion	no	no
Machining time per component in min	4,5	4
Tool life in pcs	4	8



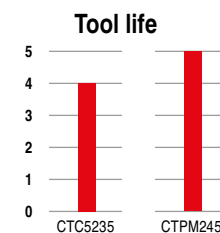
Machining time was reduced by up to 11% and the tool life was doubled.

Customer trial in Italy:

Comparison with the predecessor grade

Material: X12CRNiMoV12-3
 Indexable insert: RPHX 1204M4EN-M31
 Tool: A251.52.R.05-12-RE

Cutting data	CTC5235	CTPM245
v_c in m/min	392	392
f_z in mm	0,42	0,42
a_p in mm	3	3
Emulsion	no	no
Machining time per component in min	60	60
Tool life in pcs	4	5



Service life increased by 25% → This results in higher process-security for the revised version.

Sales support

Prices and Availability can be found in the e-techstore.

The list prices for the new grade remain unchanged, i.e. the same list prices apply as for the CTC5235 predecessor grade.

Product programme

New		Old	
Article no.	Designation	Article no.	Designation
12217425	APKT 1003PDSR-29 CTPM245	11264284	APKT 1003PDSR-29 CTC5235
12217819	APKT 1604PDSR-29 CTPM245	11238809	APKT 1604PDSR-29 CTC5235
12217450	OAKU 060508ER-F40 CTPM245	11486381	OAKU 060508ER-F40 CTC5235
12217847	OFHT 040305SN-F50 CTPM245	11688967	OFHT 040305SN-F50 CTC5235
12217454	OFHT 050410SN-F50 CTPM245	11845604	OFHT 050410SN-F50 CTC5235
12217457	OFHW 040302EN CTPM245	11526569	OFHW 040302EN CTC5235
12217460	RDHX 0501MOSN-F50 CTPM245	11489051	RDHX 0501MOEN-M31 CTC5235
12217461	RDHX 0802M4SN-F50 CTPM245	11585910	RDHX 0802M4EN-M31 CTC5235
12217464	RDHX 0802MOSN-F50 CTPM245	11379507	RDHX 0802MOEN-M31 CTC5235
12217466	RNHU 1004M4ER-M31 CTPM245	11681301	RNHU 1004M4ER-M31 CTC5235
12217859	RNHU 1004M4ER-M32 CTPM245	11687616	RNHU 1004M4ER-M32 CTC5235
12217469	RNHU 1205M4ER-M31 CTPM245	11687604	RNHU 1205M4ER-M31 CTC5235
12217471	RNHU 1205M4ER-M32 CTPM245	11687612	RNHU 1205M4ER-M32 CTC5235
12161680	RPHX 10T3M4SN-F50 CTPM245	11236257	RPHX 10T3M4EN-M31 CTC5235
12171246	RPHX 10T3M4SN-M50 CTPM245	11684028	RPHX 10T3M4EN-M32 CTC5235
12217473	RPHX 10T3M8SN-F50 CTPM245	11590815	RPHX 10T3M8EN-M31 CTC5235
12217476	RPHX 10T3M8SN-M50 CTPM245	11943270	RPHX 10T3MOSN-M50 CTC5235
12217867	RPHX 1204M4EN CTPM245	11367488	RPHX 1204M4EN CTC5235
12217479	RPHX 1204M4EN-M32 CTPM245	11514961	RPHX 1204M4EN-M32 CTC5235
12171244	RPHX 1204M4SN-F50 CTPM245	11236256	RPHX 1204M4EN-M31 CTC5235

NEW PRODUCT INFORMATION

Cutting Solutions by CERATIZIT

NEW		Old	
Article no.	Designation	Article no.	Designation
12171213	RPHX 1204M4SN-M50 CTPM245		
12170192	RPHX 1204M6SN-F50 CTPM245	11564629	RPHX 1204M6EN-M31 CTC5235
12171228	RPHX 1204M6SN-M50 CTPM245		
12217481	RPHX 1204M8SN-F50 CTPM245	11487798	RPHX 1204M8EN-M31 CTC5235
12217484	RPHX 1204M8SN-M50 CTPM245	11911520	RPHX 1204M0SN-M50 CTC5235
12217486	RPHX 1605M8SN-F50 CTPM245	11603953	RPHX 1605M8EN-M31 CTC5235
12217490	RPHX 2006M4SN-F50 CTPM245	11332716	RPHX 2006M4EN-M31 CTC5235
12217873	RPNX 10T3M4SN-F50 CTPM245	11464861	RPNX 10T3M4EN-M31 CTC5235
12217493	RPNX 10T3M8SN-F50 CTPM245	11590818	RPNX 10T3M8EN-M31 CTC5235
12217880	RPNX 1204M4SN-F50 CTPM245	11423548	RPNX 1204M4EN-M31 CTC5235
12217500	RPNX 1204M8SN-F50 CTPM245	11503315	RPNX 1204M8EN-M31 CTC5235
12217889	RPNX 2006M8SN-F50 CTPM245	11491088	RPNX 2006M8EN-M31 CTC5235
12217894	SAKU 1706ABSR-F50 CTPM245	11688502	SAKU 1706ABSR-F50 CTC5235
12217499	SDHT 0903AESN-F50 CTPM245	11332680	SDHT 0903AESN-M31 CTC5235
12217497	SDHT 1204AESN-F50 CTPM245	11332712	SDHT 1204AESN-M31 CTC5235
12217495	SDMT 120508ER-F50 CTPM245	11508381	SDMT 120508ER-M31 CTC5235
12217907	SDNT 09T308ER-F50 CTPM245	11464276	SDNT 09T308ER-M31 CTC5235
12217916	SFHT 0903AFSR-F50 CTPM245	11687874	SFHT 0903AFSR-F50 CTC5235
12217924	XDKT 070304ER-F40 CTPM245	11465132	XDKT 070304ER-F40 CTC5235
12217936	XDKT 070308ER-F40 CTPM245	11583850	XDKT 070308ER-F40 CTC5235
12217492	XDKT 11T304ER-F40 CTPM245	11477751	XDKT 11T304ER-F40 CTC5235
12217491	XDKT 11T308ER-F40 CTPM245	11379382	XDKT 11T308ER-F40 CTC5235
12171281	XDKT 11T308SR-F50 CTPM245	11684069	XDKT 11T308SR-F50 CTC5235
12217488	XDKT 11T312ER-F40 CTPM245	11563171	XDKT 11T312ER-F40 CTC5235
12217938	XDKT 11T316ER-F40 CTPM245	11379385	XDKT 11T316ER-F40 CTC5235
12217483	XDKT 11T320ER-F40 CTPM245	11533406	XDKT 11T320ER-F40 CTC5235
12217482	XDKT 11T325ER-F40 CTPM245	11379388	XDKT 11T325ER-F40 CTC5235
12217939	XDKT 11T332ER-F40 CTPM245	11379410	XDKT 11T332ER-F40 CTC5235
12217940	XDKT 11T340ER-F40 CTPM245	11471511	XDKT 11T340ER-F40 CTC5235
12217477	XDKT 150508ER-F40 CTPM245	11457053	XDKT 150508ER-F40 CTC5235
12217942	XDKT 150532ER-F40 CTPM245	11457061	XDKT 150532ER-F40 CTC5235
12217475	XDKT 150540ER-F40 CTPM245	11457066	XDKT 150540ER-F40 CTC5235
12217474	XDKT 200708ER-F40 CTPM245	11573364	XDKT 200708ER-F40 CTC5235
12217472	XDLX 09T308ER-F40 CTPM245	11930331	XDLX 09T308ER-F40 CTC5235
12171277	XDLX 09T308SR-M50 CTPM245		
12217470	XOLX 120410ER-F40 CTPM245	11930334	XOLX 120410ER-F40 CTC5235
12171270	XOLX 120410SR-M50 CTPM245		
12217468	XPLX 060305ER-F40 CTPM245	11930324	XPLX 060305ER-F40 CTC5235