

**RAMPA®**

*Good idea. Let's make it!*

# THERMOPLASTIC/PTFE

## Strong connections for thermoplastics using of PTFE example



### Secure hold. Ideal for:

- ⇒ Mechanical engineering
- ⇒ Elektrical engineering
- ⇒ Chemical industry

### RAMPA®-Inserts Type: SKD330



- Wide range of applications
- Automatic alignment by 3 support points
- Guaranteed straight assembling
- Hub for simplified assembling
- Up to 2.5 times faster than conventional insertss
- Maximum load capacity utilization of the assembling area
- Patented 3-start thread contour

### RAMPA®-Inserts Type: SKD30



- Wide range of applications
- Hub for simplified assembling
- High load capacity utilization of the assembling area
- Patented 1-start thread contour

### RAMPA®-Inserts Type: ES

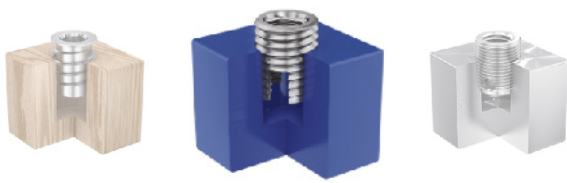


- For materials with high strength/density
- Also for thin-walled applications
- Conical hub
- Cutting slot
- Wide variety of materials, including in stainless steel

The following products can be used as well: ESD, ESK, BAS, BAN/BAV

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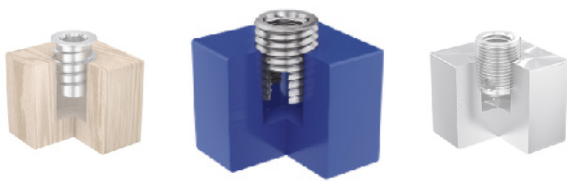


# THERMOPLASTIC/PTFE

## Strong connections for thermoplastics using of PTFE example

	SKD330	SKD30	ES
High processing speed	++	+	-
Separate drive for assembling	++	++	-
Supports vertical assembling	++	+	0
Disassembly possible	+	+	-
Stainless steel in standard assortment	0	0	+
Patented	✓	✓	0
Material compaction through displacement	++	+	0
Low tension assembling	-	-	++
For thin-walled components	0	0	++
Chipless mounting	+	+	-
Stock goods	++	++	++
Fully automated assembling	++	++	+

Legend: ++ Very strong, + Strong, - Weak, 0 Not present

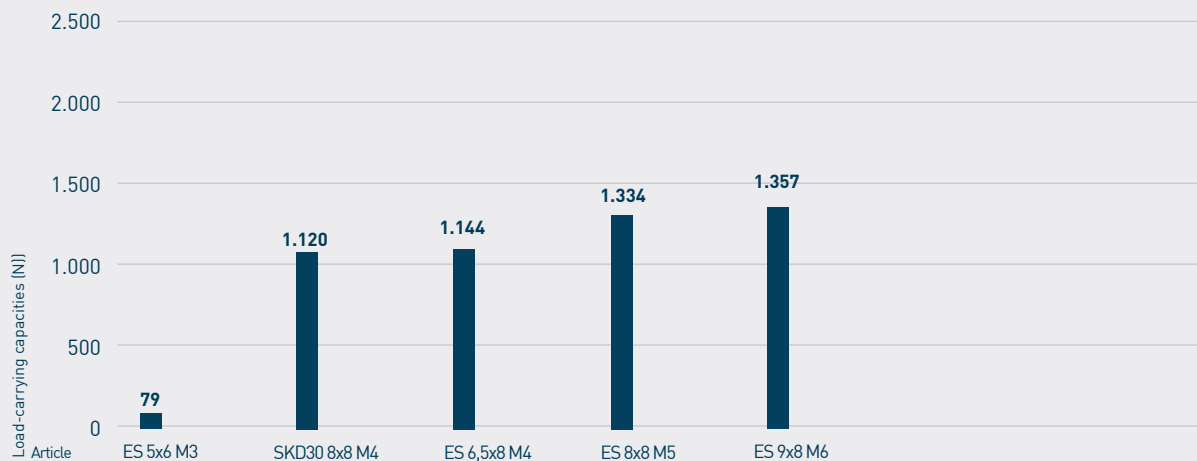


# THERMOPLASTIC/PTFE

## Strong connections for thermoplastics using of PTFE example

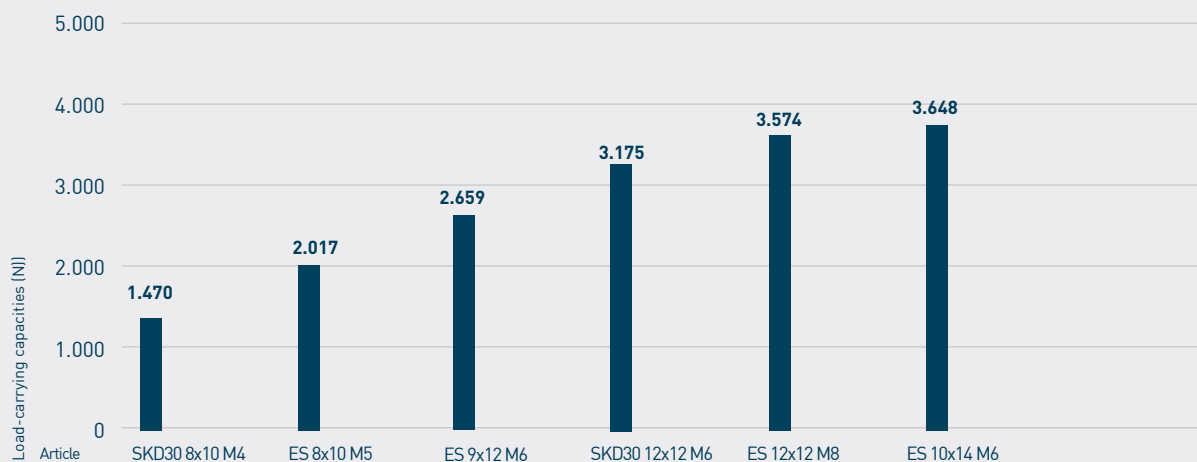
### Load-carrying capacities

material thickness 10mm

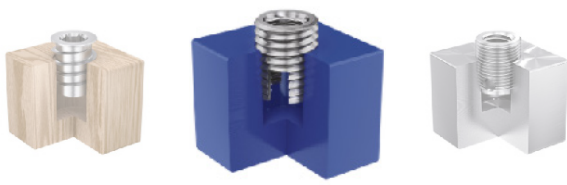


### Load-carrying capacities

material thickness 15mm



\* The reference load-carrying capacities mentioned before might vary in individual cases due to different mechanical properties depending on the material used.

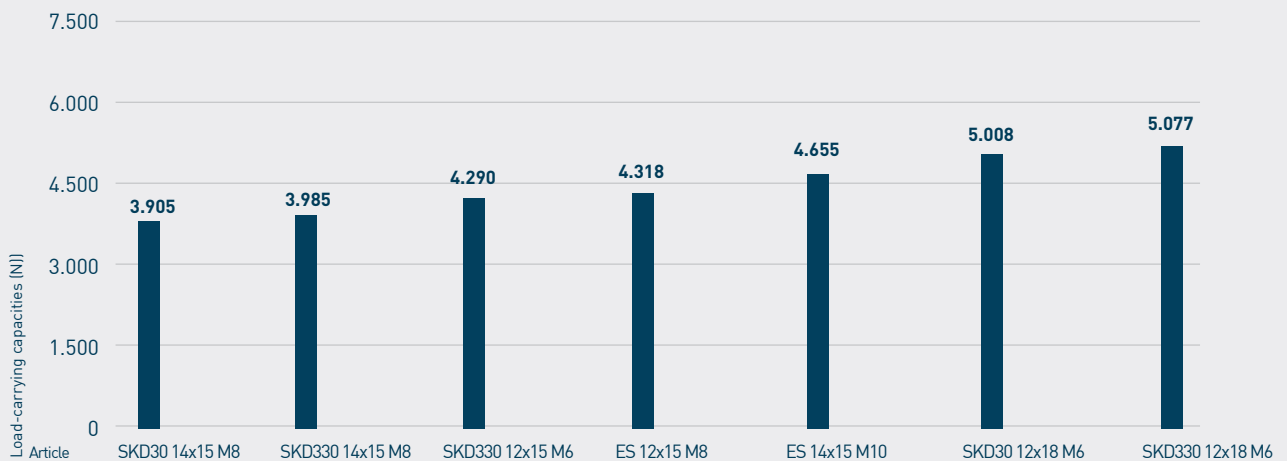


# THERMOPLASTIC/PTFE

## Strong connections for thermoplastics using of PTFE example

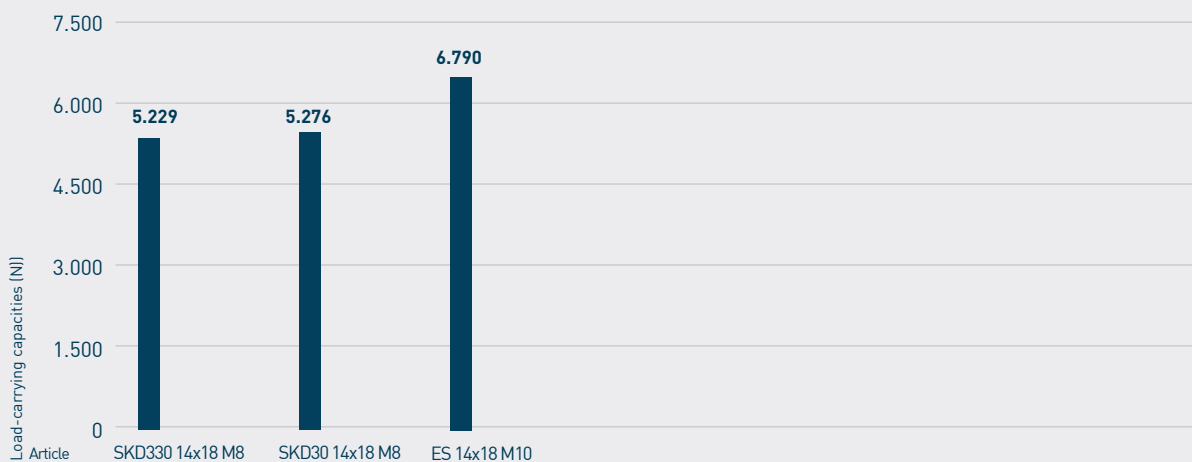
### Load-carrying capacities

material thickness 20mm

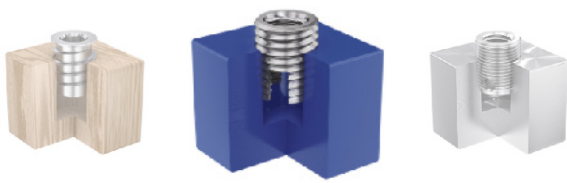


### Load-carrying capacities

material thickness 20mm



\* The reference load-carrying capacities mentioned before might vary in individual cases due to different mechanical properties depending on the material used.



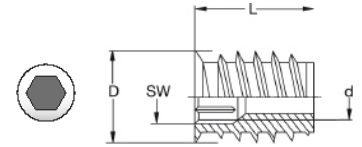
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# THERMOPLASTIC/PTFE

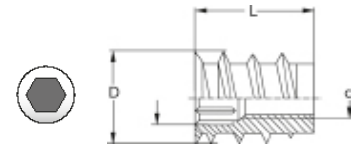
The suitable inserts for thermoplastics / PTFE

## RAMPA®-Inserts | Type: SKD330

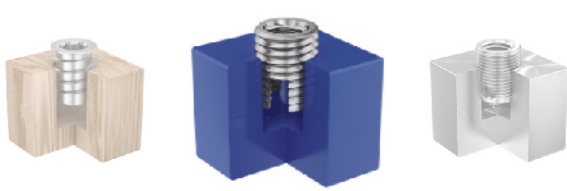


Art. No.	Outer-Ø D (mm)	Length L (mm)	Threadsize d (mm)	Hex Drive	Pre-Drill Ø (mm)	steel zinc-plated
420615001	12	15	M6	6	10,0 - 10,5	✓
420618001	12	18	M6	6	10,0 - 10,5	✓
420855001	14	15	M8	8	12,0 - 12,5	✓
420858001	14	18	M8	8	12,0 - 12,5	✓
420120001	18,5	20	M10	10	16,5	✓
420125001	18,5	25	M10	10	16,5	✓

## RAMPA®-Inserts | Type: SKD30



Art. No.	Outer-Ø D (mm)	Length L (mm)	Threadsize d (mm)	Hex Drive	Pre-Drill Ø (mm)	steel zinc-plated
439408001	8	8	M4	4	7,0	✓
439410001	8	10	M4	4	7,0	✓
439412001	8	12	M4	4	7,0	✓
439512001	10	12	M5	5	9,0	✓
439612001	12	12	M6	6	10,0 - 10,5	✓
439615001	12	15	M6	6	10,0 - 10,5	✓
439618001	12	18	M6	6	10,0 - 10,5	✓
439855001	14	15	M8	8	12,0 - 12,5	✓
439858001	14	18	M8	8	12,0 - 12,5	✓



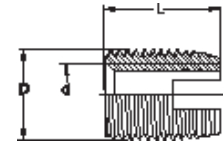
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# THERMOPLASTIC/PTFE

The suitable inserts for thermoplastics / PTFE

RAMPA®-Inserts | Type: ES



Art. No.	Outer-Ø D (mm)	Length L (mm)	Thread-size d (mm)	Steel yellow zinc-plated	Steel hardened yellow	Steel hardened blue zinc-plated	Brass plain*	Stainless steel* 1.4305	Stainless steel* 1.4571
009256__	4,5 x 0,5	6	M2,5		✓	✓			
009306__	5 x 0,5	6	M3	✓	✓	✓	✓	✓	
009308__	6 x 0,75	8	M3,5		✓	✓			
009408__	6,5 x 0,75	8	M4	✓	✓	✓	✓	✓	✓
009508__	8 x 1	8	M5	✓	✓	✓	✓		
009510__	8 x 1	10	M5	✓	✓	✓	✓	✓	✓
009608__	9 x 1	8	M6	✓	✓	✓	✓		
009610__	9 x 1	10	M6	✓	✓	✓	✓		
009612__	9 x 1	12	M6	✓	✓	✓	✓	✓	
009614__	10 x 1,5	14	M6	✓	✓	✓	✓	✓	✓
009812__	12 x 1,5	12	M8	✓	✓	✓	✓		
009815__	12 x 1,5	15	M8	✓	✓	✓	✓	✓	✓
009916__	14 x 1,5	15	M10	✓	✓	✓	✓		
009918__	14 x 1,5	18	M10	✓	✓	✓	✓	✓	✓
009926__	16 x 1,5	18	M10	✓	✓	✓			
009922__	16 x 1,5	22	M12	✓	✓	✓	✓	✓	✓
009924__	18 x 1,5	24	M14		✓			✓	
009952__	20 x 1,5	22	M16	✓	✓	✓		✓	✓
009207__	26 x 1,5	27	M20		✓	✓		✓	✓
009240__	30 x 1,5	30	M24		✓	✓			

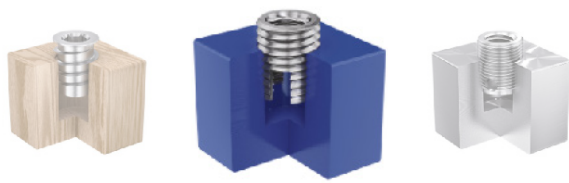
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\*1 We hereby inform you according to Article 33 - REACH, that this article contains the following substance identified as SVHC:  
Lead (Pb); CAS: 7439-92-1 Date of Admission: 27.06.2018

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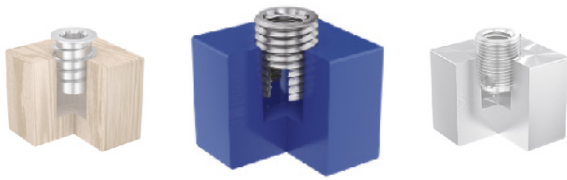
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# THERMOPLASTIC/PTFE

The suitable inserts for thermoplastics / PTFE

Assembling instructions RAMPA®-Inserts | Type: SKD330, SKD30, ES

Art. Nr.	Typ	Außen-Ø D (mm)	Länge L (mm)	Gewinde- größe d (mm)	Vorbohr-Ø (mm)	Eindreh- moment (Nm)	Auszugskraft (N)
420615__	SKD330	12	15	M6	10,5	4,0	4290
420618__	SKD330	12	18	M6	10,5	4,2	5077
420855__	SKD330	14	15	M8	12,5	6,0	3985
420858__	SKD330	14	18	M8	12,5	5,0	5229
439408__	SKD30	8	8	M4	7,0	2,0	1120
439410__	SKD30	8	10	M4	7,0	2,5	1470
439412__	SKD30	8	12	M4	7,0	3,0	1800
439612__	SKD30	12	12	M6	10,5	2,0	3175
439618__	SKD30	12	18	M6	10,5	2,7	5008
439855__	SKD30	14	15	M8	12,5	3,5	3905
439858__	SKD30	14	18	M8	12,5	3,8	5276
009306__	ES	5 x 0,5	6	M3	4,5	0,2	79
009408__	ES	6,5 x 0,75	8	M4	5,8	0,3	1144
009508__	ES	8,0 x 1,0	8	M5	7	1,7	5811
009510__	ES	8,0 x 1,0	10	M5	7	1,8	6146
009608__	ES	9,0 x 1,0	8	M6	8	3,1	5499
009612__	ES	9,0 x 1,0	12	M6	8	5,8	8937
009614__	ES	10,0 x 1,5	14	M6	8,5	1,2	3648
009812__	ES	12,0 x 1,5	12	M8	10,5	2,3	3574
009815__	ES	12,0 x 1,5	15	M8	10,5	3,3	4318
009916__	ES	14,0 x 1,5	15	M10	12,5	3,5	4665
009918__	ES	14,0 x 1,5	18	M10	12,5	3,7	5711



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## Recommended RAMPA® assembling tools:

Driver | Type 515  
Hexagonal shank



Driver | Type 504  
DIN 3126 E11.2  
Hexagonal shank



Driver | Type 506  
DIN 3126 E6.3  
Hexagonal shank

