

**Cutting and Processing**

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# TF-11~45

# JET BLACK FILE

High performance, Rust-resistant, Black coated files

PRODUCT VIDEO



Item No.	Shape	Coarseness	Blade length	O.A. length	Wgt (g)
TF-11	□	Second-cut	100	215	58
TF-12	△				59
TF-13	○				41
TF-14	□				52
TF-15	△				56
TF-21	□	#3	100	200	21
TF-22	△				18
TF-23	○				16
TF-24	□				19
TF-25	△				17
TF-31	□	Smooth-cut	100	215	58
TF-32	△				61
TF-33	○				40
TF-34	□				55
TF-35	△				58
TF-41	□	Second-cut	175	325	166
TF-42	△				153
TF-43	○				109
TF-44	□			325	112
TF-45	△				166



**ORDINARY FILES**  
Clogged with filing debris



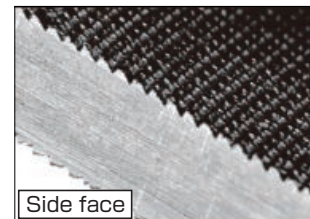
Burr on each file tooth is eliminated before black coating, good for high and lasting performance of filing.



Sharp edge of teeth



Rust-resistant black coating



Side face

Smooth machined surface, ideal for filing a corner without damage. (TF-11, 21, 31, 41 only)

## TFS-07·10·20·30

## JET BLACK FILE SET

- A set of Jet Black Files in a roll-up storage with a strap



TFS-10

W240×L240(mm)

W50×L240×H50(mm)

(mm)

Item No.	Shape					Brush	Coarseness	Blade length	O.A. length	Wgt (g)
	□	△	○	□	△					
TFS-07	TF-11	TF-12	TF-13	□	△	-	Second-cut	100	215	274
	TF-21	TF-22	TF-23	-	-					
TFS-10	TF-11	TF-12	TF-13	TF-14	TF-15	○	Second-cut	100	215	349
TFS-20	TF-21	TF-22	TF-23	TF-24	TF-25	○	Precision	100	200	170
TFS-30	TF-31	TF-32	TF-33	TF-34	TF-35	○	Smooth-cut	100	215	371

## TFS-01·02

## FILE SET

- Normal Type (Second-cut)
- Ideal for metalworking of steel, die-cast, aluminum, etc.



TFS-01



TFS-02  
(TF-06~10)

Item No.	Contents	□	△	○	□	△	Length(mm)
TFS-01	5	●	●	●	●	●	185
TFS-02	5	●	●	●	●	●	200