

## Dark F

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **32**
- SRM **24.5**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.9 liter(s)**
- Total mash volume **30.8 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (58.5%)	80 %	5
Grain	Pszeniczny	1 kg (14.6%)	85 %	4
Grain	Strzegom Karmel 300	0.3 kg (4.4%)	70 %	299
Grain	Karmelowy Jasny 30EBC	0.5 kg (7.3%)	75 %	30
Grain	Carafa II	0.34 kg (5%)	70 %	812
Grain	Strzegom Monachijski typ II	0.2 kg (2.9%)	79 %	22
Grain	Viking Melanoidynowy	0.2 kg (2.9%)	75 %	60
Grain	Strzegom Monachijski typ I	0.3 kg (4.4%)	79 %	16

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	25 g	60 min	10 %
Boil	Marynka	10 g	10 min	10 %
Boil	Sybilla	20 g	10 min	3.5 %
Boil	Saaz (Czech Republic)	20 g	10 min	4.5 %
Aroma (end of boil)	Saaz (Czech Republic)	20 g	0 min	4.5 %
Aroma (end of boil)	Centennial	20 g	0 min	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	200 ml	Fermentis