

FES

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **38**
- SRM **31.9**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.8 liter(s)**

Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (80%)	79 %	6
Grain	crystal 160	0.15 kg (3%)	70 %	160
Grain	Weyermann - Chocolate Wheat	0.15 kg (3%)	74 %	788
Grain	Jęczmień palony	0.1 kg (2%)	55 %	985
Grain	Płatki pszeniczne	0.2 kg (4%)	85 %	3
Grain	Weyermann - Carafo II	0.15 kg (3%)	70 %	837
Grain	Słód pszeniczny Bestmalz	0.25 kg (5%)	82 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	marynka	30 g	60 min	8.8 %

Yeasts

Name	Type	Form	Amount	Laboratory
WLP090 - San Diego Super Yeast	Ale	Liquid	1000 ml	White Labs