

Burnt FES

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **31**
- SRM **100.4**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **9 liter(s)**
- Trub loss **5 %**
- Size with trub loss **9.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **11.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.2 liter(s)**
- Total mash volume **9.6 liter(s)**

Steps

- Temp **63 C**, Time **60 min**

Mash step by step

- Heat up **7.2 liter(s)** of strike water to **70.2C**
- Add grains
- Keep mash **60 min** at **63C**
- Sparge using **6.5 liter(s)** of **76C** water or to achieve **11.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	0.32 kg (12.3%)	80 %	4
Grain	Melanoiden Malt	0.3 kg (11.5%)	80 %	40
Grain	Jęczmień palony	0.3 kg (11.5%)	55 %	985
Grain	Strzegom Czekoladowy 1200	0.3 kg (11.5%)	68 %	1200
Grain	Extra black	0.6 kg (23.1%)	65 %	1400
Grain	Monachijski	0.58 kg (22.3%)	80 %	16
Sugar	XYLITOL	0.2 kg (7.7%)	75 %	2

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	10 g	60 min	13.3 %

Yeasts

Name	Type	Form	Amount	Laboratory
FM13 Irlandzkie Ciemności	Ale	Slant	100 ml	Fermentum Mobile