

Christmas Stout

- Gravity **19.8 BLG**
- ABV **8.7 %**
- IBU **81**
- SRM **45.9**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **20.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **24.8 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **2.8 liter(s) / kg**
- Mash size **21.3 liter(s)**
- Total mash volume **28.9 liter(s)**

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Maris Otter	4 kg (46.5%)	81 %	6
Grain	Żytni	1 kg (11.6%)	85 %	8
Grain	Strzegom Czekoladowy 1200	0.4 kg (4.7%)	68 %	1202
Grain	Pale Chocolate	0.3 kg (3.5%)	71 %	400
Grain	Jęczmień palony	0.3 kg (3.5%)	55 %	985
Grain	Fawcett - Crystal Rye	0.6 kg (7%)	70 %	200
Grain	Płatki owsiane	1 kg (11.6%)	85 %	3
Sugar	Milk Sugar (Lactose)	1 kg (11.6%)	76.1 %	0

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	80 g	60 min	12 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis