

## #03 Christmas Stout

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **22**
- SRM **38.2**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19.8 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.4 liter(s)**
- Total mash volume **18.5 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	2 kg (48.8%)	80 %	5
Grain	Pszeniczny	0.5 kg (12.2%)	85 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (12.2%)	79 %	16
Grain	Strzegom Karmel 150	0.2 kg (4.9%)	75 %	150
Grain	Strzegom Czekoladowy jasny	0.5 kg (12.2%)	68 %	400
Grain	Jęczmień palony	0.4 kg (9.8%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Sovereign	15 g	45 min	6.1 %
Boil	Sovereign	15 g	30 min	6.1 %

### Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	10 g	Safale

### Extras

Type	Name	Amount	Use for	Time
Spice	cynamon	10 g	Boil	10 min
Spice	imbir	10 g	Boil	10 min
Spice	laska wanilii	2 g	Boil	10 min
Spice	goździki	5 g	Boil	10 min
Spice	gałka muskatołowa	5 g	Boil	10 min
Flavor	śliwki wędzone	50 g	Boil	10 min

Flavor	skórka pomarańczy	20 g	Secondary	3 day(s)
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