

Stout

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **83**
- SRM **23.8**
- Style **American Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **10 %**
- Size with trub loss **26.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **30.8 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **23.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.1 liter(s)** of **76C** water or to achieve **31.5 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (64.9%)	80 %	4
Grain	Caraaroma	0.3 kg (3.9%)	78 %	400
Grain	żytni czekoladowy	0.6 kg (7.8%)	65 %	600
Grain	Płatki owsiane	1 kg (13%)	85 %	3
Grain	płatki żytnie	0.8 kg (10.4%)	80 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	lunga	50 g	90 min	9.5 %
Boil	chinook PL	50 g	30 min	9.1 %
Aroma (end of boil)	chinook PL	50 g	8 min	9.1 %
Whirlpool	Cascade PL	50 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	200 ml	Danstar