

Stout

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **17**
- SRM **30.2**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **3 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **26.1 liter(s)**

Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.8 liter(s)**
- Total mash volume **16.5 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **78 C**, Time **15 min**

Mash step by step

- Heat up **12.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **26.1 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.45 kg (66.8%)	80 %	4
Grain	Wheat Blanc Castle Malting	0.5 kg (13.6%)	83 %	5.5
Grain	Fawcett - Brown	0.19 kg (5.2%)	72 %	180
Grain	Barwiący obłuszczoney	0.13 kg (3.5%)	70 %	1300
Grain	Strzegom Czekoladowy ciemny	0.2 kg (5.4%)	68 %	1200
Grain	Roasted rye	0.2 kg (5.4%)	67.5 %	600

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Saaz (Czech Republic)	9.3 g	50 min	4 %
Boil	Saaz (Czech Republic)	15 g	50 min	3.47 %
Boil	Saaz (Czech Republic)	20 g	20 min	3.47 %
Boil	Saaz (Czech Republic)	15 g	10 min	3.47 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar BRY-97	Ale	Slant	80 ml	danstar

Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	2.37 g	Boil	10 min
Other	Vitamon Combi	5 g	Boil	10 min