

sto-ut

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **30**
- SRM **34.6**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

Mash information

- Mash efficiency **82 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

Steps

- Temp **66 C**, Time **60 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **16 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.5 kg (65.4%)	81 %	4
Grain	Caraaroma	0.4 kg (7.5%)	78 %	400
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.7%)	68 %	1200
Grain	Jęczmień palony	0.25 kg (4.7%)	55 %	985
Grain	Płatki owsiane	0.8 kg (15%)	85 %	3
Grain	Strzegom Karmel 600	0.2 kg (3.7%)	68 %	601

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	30 g	60 min	9.6 %
Boil	Lublin (Lubelski)	20 g	5 min	4 %

Yeasts

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