

12# SMOG

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **28**
- SRM **35**
- 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 **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **55 C**, Time **1 min**
- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.6 liter(s)** of strike water to **60C**
- Add grains
- Keep mash **1 min** at **55C**
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Carafa II	0.3 kg (5.1%)	70 %	1100
Grain	Fawcett - Brown	0.3 kg (5.1%)	72 %	180
Grain	Viking Pale Ale malt	3 kg (50.8%)	80 %	5
Grain	Smoked Malt	2 kg (33.9%)	80 %	18
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.1%)	68 %	1200

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Lublin (Lubelski)	30 g	60 min	4.5 %
Boil	Sybilla	30 g	60 min	3 %
Boil	Lublin (Lubelski)	10 g	30 min	4.5 %
Boil	Sybilla	10 g	30 min	3 %
Boil	Lublin (Lubelski)	5 g	5 min	4.5 %
Boil	Sybilla	5 g	5 min	3 %

Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11 g	Safale