

- Gravity **27 BLG**
- ABV **12.9 %**
- IBU **40**
- SRM **28**
- Style **Baltic Porter**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **23.8 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.3 liter(s) / kg**
- Mash size **23.7 liter(s)**
- Total mash volume **34 liter(s)**

Steps

- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **23.7 liter(s)** of strike water to **72.3C**
- Add grains
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **23.8 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5 kg (48.5%)	80 %	4.5
Grain	Strzegom Monachijski typ I	2 kg (19.4%)	79 %	15
Grain	BESTMALZ - Best Vienna	2 kg (19.4%)	80.5 %	9
Grain	Strzegom Karmel 30	1 kg (9.7%)	75 %	30
Grain	Fawcett - Pale Chocolate	0 kg	71 %	690
Grain	Chocolate Bestmalz	0.15 kg (1.5%)	60 %	1000
Grain	Extra black	0.15 kg (1.5%)	65 %	1400

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	50 g	60 min	11.2 %
Boil	Lublin (Lubelski)	20 g	10 min	4 %

Yeasts

Name	Type	Form	Amount	Laboratory
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Saflager W 34/70	Lager	Slant	1 ml	Fermentis
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Extras

Type	Name	Amount	Use for	Time
Fining	mech	10 g	Boil	15 min