

Święta

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **30**
- SRM **22.7**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **20.5 liter(s)**
- Total mash volume **27.4 liter(s)**

Steps

- Temp **69 C**, Time **60 min**

Mash step by step

- Heat up **20.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Sparge using **18.1 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	3.4 kg (49.6%)	80 %	5
Grain	Strzegom Pilzneński	1 kg (14.6%)	80 %	4
Grain	Biscuit Malt	0.1 kg (1.5%)	79 %	45
Grain	Strzegom Czekoladowy jasny	0.2 kg (2.9%)	68 %	400
Grain	Jęczmień palony	0.35 kg (5.1%)	55 %	985
Grain	Płatki pszeniczne	0.6 kg (8.8%)	85 %	3
Grain	Płatki owsiane	0.6 kg (8.8%)	85 %	3
Grain	Płatki jęczmienne	0.6 kg (8.8%)	85 %	3

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	35 g	60 min	10.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Danstar - Nottingham	Ale	Slant	100 ml	Danstar

Extras

Type	Name	Amount	Use for	Time
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Spice	przyprawa do piernika	60 g	Boil	10 min
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