

Świąteczne Ale

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **30**
- SRM **43.2**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.2 liter(s)**
- Total mash volume **29.6 liter(s)**

Steps

- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **20 min**
- Temp **68 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **5 min**

Mash step by step

- Heat up **22.2 liter(s)** of strike water to **58.5C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **20 min** at **62C**
- Keep mash **40 min** at **68C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **10.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pilsner malt	2 kg (25.3%)	82 %	4
Grain	Strzegom Monachijski typ II	1 kg (12.7%)	79 %	22
Grain	Viking Pale Ale malt	2 kg (25.3%)	80 %	5
Grain	cookie	0.5 kg (6.3%)	75 %	10
Grain	Karmelowy Czerwony	0.5 kg (6.3%)	75 %	60
Grain	Strzegom Czekoladowy ciemny	0.3 kg (3.8%)	68 %	1200
Grain	Jęczmień palony	0.2 kg (2.5%)	55 %	1000
Grain	czekoladowy żytni	0.5 kg (6.3%)	70 %	650
Grain	Płatki owsiane	0.4 kg (5.1%)	60 %	3
Sugar	Miód Gryczany	0.5 kg (6.3%)	90 %	40

Hops

Use for	Name	Amount	Time	Alpha acid
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Boil	East Kent Goldings	50 g	60 min	6.3 %
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Yeasts

Name	Type	Form	Amount	Laboratory
Lallemand - Nottingham	Ale	Dry	23 g	Lallemand

Extras

Type	Name	Amount	Use for	Time
Spice	starta gałka muszkatołowa	8 g	Boil	45 min
Spice	Goździki szt	8 g	Boil	45 min
Spice	anyż	8 g	Boil	45 min
Spice	starty kardamon	8 g	Boil	45 min
Spice	przyprawa do piernika	16 g	Boil	45 min
Flavor	skórka pomarańczy szt	2 g	Boil	30 min
Flavor	miód gryczany	500 g	Boil	60 min
Spice	świeży imbir	32 g	Boil	10 min
Spice	cynamon szt	2 g	Boil	45 min