

## #5 świąteczne

- Gravity **16.6 BLG**
- ABV ---
- IBU **32**
- SRM **18.6**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	2 kg (32.8%)	79 %	6
Grain	Pilzneński	2 kg (32.8%)	81 %	4
Grain	Carahell	0.5 kg (8.2%)	77 %	26
Grain	Biscuit Malt	0.7 kg (11.5%)	79 %	45
Grain	Melanoiden Malt	0.7 kg (11.5%)	80 %	39
Grain	Czekoladowy	0.2 kg (3.3%)	60 %	400

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Target	20 g	60 min	10.5 %
Boil	Kent Goldings	20 g	20 min	5.5 %
Boil	Perle	20 g	10 min	7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
gęstwa	Ale	Slant	300 ml	#AIPA

### Extras

Type	Name	Amount	Use for	Time
Spice	gałka muskatołowa	8 g	Boil	10 min
Spice	goździki 14 szt	0 g	Boil	10 min
Spice	kardamon 2 ziarna	0 g	Boil	10 min
Spice	cynamon	7 g	Boil	10 min
Spice	ziele angielskie 2 ziarna	0 g	Boil	10 min
Spice	imbir	6 g	Boil	10 min

Spice	starta skórka z pomarańczy 4 szt	0 g	Boil	10 min
Spice	czarny pieprz 2 szt	0 g	Boil	10 min
Spice	laska wanilii 1 szt	0 g	Boil	10 min
Spice	anyż	3 g	Boil	10 min