

# święteczna niespodzianka

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **26**
- SRM **28.3**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **25.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **50 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **50 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **14.1 liter(s)** of **76C** water or to achieve **25.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (51.7%)	81 %	4
Grain	Strzegom Pszeniczny	1 kg (17.2%)	81 %	6
Grain	Strzegom Karmel 300	0.8 kg (13.8%)	70 %	299
Grain	cooki viking malt	0.2 kg (3.4%)	72 %	50
Grain	czekoladowy ciemny viking malt	0.2 kg (3.4%)	67 %	900
Grain	czekoladowy jasny viking malt	0.2 kg (3.4%)	68 %	400
Grain	płatki jęczmienne błyskawiczne	0.4 kg (6.9%)	75 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	magnum	25 g	40 min	11.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	11.5 g	Safale

## Extras

Type	Name	Amount	Use for	Time
Flavor	słodzik stevia	5 g	Boil	5 min
Spice	przyprawa do grzanego wina i piwa kamis	40 g	Boil	5 min
Flavor	suszone morele	300 g	Boil	60 min
Flavor	kandyzowana skórka pomarańczy	100 g	Boil	10 min
Fining	żelatyna spozywcza	4 g	Secondary	4 day(s)
Other	glukoza	126 g	Bottling	---
Spice	trawa cytryowa	20 g	Boil	20 min

## Notes

- słód czekoladowy ciemny dodać po przerwie 50 min na 15 min  
słodzik 5g. czyli około 2 tab. / l  
*Nov 1, 2019, 10:30 AM*