

## #VI Świąteczny słodki stout

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **15**
- SRM **28.3**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **21 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **27.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.1 liter(s)**
- Total mash volume **21.4 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **16.1 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **10 min** at **72C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.8 liter(s)** of **76C** water or to achieve **27.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Colorado pale ale	1 kg (18.7%)	79 %	6
Grain	Pale ale Holycon	1 kg (18.7%)	80.3 %	5.3
Grain	Strzegom Pale Ale	1 kg (18.7%)	79 %	6
Grain	Monachijski	1 kg (18.7%)	80 %	16
Grain	Słód Caramel Sweet	0.4 kg (7.5%)	75 %	60
Grain	Barley, Flaked	0.5 kg (9.3%)	70 %	4
Grain	Strzegom Czekoladowy ciemny	0.3 kg (5.6%)	68 %	1200
Grain	Black Barley (Roast Barley)	0.15 kg (2.8%)	55 %	985

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Styrian Goldings	10 g	55 min	5.2 %
Boil	Styrian Goldings	15 g	40 min	5.2 %
Aroma (end of boil)	Styrian Goldings	15 g	10 min	5.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mauribrew Ale Y514	Ale	Dry	12.5 g	Mauribrew

## Extras

Type	Name	Amount	Use for	Time
Flavor	skórka pomarańczy	60 g	Boil	10 min
Flavor	śliwki suszone	80 g	Boil	10 min
Spice	kardamon	3 g	Boil	10 min
Spice	goździki	3 g	Boil	10 min
Spice	gałka muszkatałowa	4 g	Boil	10 min
Flavor	Milk Sugar (Lactose)	570 g	Boil	10 min
Fining	whirlfoc	2 g	Boil	10 min
Spice	cynamon	4 g	Secondary	14 day(s)
Spice	gałka muszkatałowa	1 g	Secondary	14 day(s)
Spice	goździki	3 g	Secondary	14 day(s)
Spice	kardamon	2 g	Secondary	14 day(s)

## Notes

- wdało się zakażenie = zlew  
*Dec 18, 2018, 8:11 PM*