

# święteczne 2016

- Gravity **16.8 BLG**
- ABV ---
- IBU **30**
- SRM **41.1**
- Style **Specialty Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **15.9 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **11.1 liter(s)**
- Total mash volume **14.3 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**

## Mash step by step

- Heat up **11.1 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **50 min** at **68C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **15.9 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (73.1%)	--- %	4
Grain	Pszeniczny	0.3 kg (8.8%)	--- %	4
Grain	Strzegom Czekoladowy 1200	0.15 kg (4.4%)	--- %	1202
Grain	Strzegom Karmel 30	0.12 kg (3.5%)	--- %	30
Sugar	Candi Sugar, Amber	0.125 kg (3.7%)	78.3 %	148
Sugar	Cane (Beet) Sugar	0.125 kg (3.7%)	--- %	0
Grain	Jęczmień palony	0.1 kg (2.9%)	--- %	985

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10.5 %
Aroma (end of boil)	Chinook	15 g	10 min	13 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Slant	500 ml	---

## Extras

Type	Name	Amount	Use for	Time
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Spice	laska wanilii	2 g	Boil	10 min
Spice	cynamon starty	4 g	Boil	10 min
Spice	gałka muszkatolowa starta	2 g	Boil	10 min
Spice	goździki całe	4 g	Boil	10 min
Spice	imbir starty	3 g	Boil	10 min
Flavor	skórka pomarańczy suszona	10 g	Boil	10 min
Flavor	śliwki suszone posiekane	50 g	Boil	15 min