Czarny

- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **31**
- SRM **27.1**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.1 liter(s)**
- Total mash volume **10.8 liter(s)**

Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **8.1 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **8.6 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	1 kg *(37%)*	79 %	6
Grain	Aroma CastleMalting	0.5 kg *(18.5%)*	78 %	100
Grain	strzegom enzymatyczny	0.5 kg *(18.5%)*	--- %	7
Grain	Castle Cafe	0.2 kg *(7.4%)*	75.5 %	480
Grain	Strzegom Karmel 200	0.1 kg *(3.7%)*	75 %	200
Grain	Płatki owsiane	0.3 kg *(11.1%)*	85 %	3
Grain	Jęczmień palony	0.1 kg *(3.7%)*	55 %	985

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	East Kent Goldings	30 g	60 min	5.1 %

Yeasts

Name	Type	Form	Amount	Laboratory
Gozdawa Pure Ale Yeast 7	Ale	Dry	10 g	gozdawa

Extras

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.

Type	Name	Amount	Use for	Time
Flavor	laktoza	250 g	Boil	5 min