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- Gravity **29 BLG**
- ABV **---**
- IBU **34**
- SRM **40**
- Style **Russian Imperial Stout**

Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **10 %**
- Size with trub loss **19.8 liter(s)**
- Boil time **50 min**
- Evaporation rate **15 %/h**
- Boil size **22.3 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

Mash step by step

- Heat up **32.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **0.9 liter(s)** of **76C** water or to achieve **22.3 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5.5 kg *(51.4%)*	79 %	6
Grain	Jęczmień palony	0.5 kg *(4.7%)*	55 %	985
Grain	Strzegom Karmel 300	0.7 kg *(6.5%)*	70 %	299
Grain	Pszeniczny	1 kg *(9.3%)*	70 %	4
Grain	Strzegom Barwiący	0.5 kg *(4.7%)*	65 %	1300
Grain	Weyermann - Smoked Malt	2 kg *(18.7%)*	70 %	6
Grain	strzegom prażona pszenica	0.5 kg *(4.7%)*	70 %	1000

Hops

Use for	Name	Amount	Time	Alpha acid
Aroma (end of boil)	Perle	70 g	15 min	7 %
Boil	Tradition	50 g	60 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory

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

Safale S-04	Ale	Dry	11 g	Safale