

## Paragraf 22

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- Gravity **18.9 BLG**
- ABV **8.2 %**
- IBU **29**
- SRM **25.1**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **15 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	3 kg (42.3%)	85 %	7
Grain	Rye Malt	2 kg (28.2%)	63 %	10
Grain	Jęczmień palony	0.1 kg (1.4%)	55 %	985
Grain	Oats, Flaked	0.5 kg (7%)	80 %	2
Grain	Caraaroma	0.5 kg (7%)	78 %	400
Sugar	Brown Sugar, Dark	1 kg (14.1%)	100 %	99

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Izabella	50 g	60 min	6.8 %

### Extras

Type	Name	Amount	Use for	Time
Flavor	Laktoza	500 g	Boil	15 min