

## GROWLER [BrewDog]

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- Gravity **12.5 BLG**
- ABV ---
- IBU **42**
- SRM **8**
- Style **Classic American Pilsner**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

### Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.1 liter(s)**
- Total mash volume **17.5 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**

### Mash step by step

- Heat up **13.1 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **90 min** at **65C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	4 kg (91.3%)	79 %	6
Grain	Weyerman Carahell	0.25 kg (5.7%)	77 %	26
Grain	Strzegom Karmel 150	0.13 kg (3%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	8 g	60 min	12 %
Boil	Citra	62 g	10 min	12 %
Dry Hop	Citra	30 g	3 day(s)	12 %