

## Natkowy Stout v2

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- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **39**
- SRM **37.1**
- Style **Sweet Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.5 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.5 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **67 C**, Time **45 min**
- Temp **70 C**, Time **5 min**
- Temp **77 C**, Time **5 min**
- Temp **100 C**, Time **45 min**

### Mash step by step

- Heat up **17.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **5 min** at **70C**
- Keep mash **5 min** at **77C**
- Keep mash **45 min** at **100C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann Specjal W	1 kg (20%)	68 %	300
Grain	Abbey Malt Weyermann	2 kg (40%)	75 %	45
Grain	Caraaroma	1 kg (20%)	78 %	400
Grain	Weyermann - Pale Ale Malt	1 kg (20%)	85 %	7

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Oktawia	30 g	45 min	8.3 %
Boil	Sybilla	15 g	45 min	6.2 %
Aroma (end of boil)	Sybilla	15 g	15 min	6.2 %
Dry Hop	Falconer's Flight	15 g	7 day(s)	10.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M15 Empire Ale	Ale	Dry	11 g	Mangrove Jack's
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