

## Bartoszko #3

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **26**
- SRM **31.9**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **16.8 liter(s)**
- Total mash volume **21.6 liter(s)**

### Steps

- Temp **68 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.8 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **70 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **13.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (83.3%)	80 %	5
Grain	Karmelowy Pszeniczny Strzegom	0.3 kg (6.3%)	79 %	120
Grain	Jęczmień palony	0.2 kg (4.2%)	55 %	1150
Grain	Weyermann - Carafa II	0.3 kg (6.3%)	70 %	1150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnat	20 g	60 min	9.8 %
Boil	Magnat	10 g	10 min	9.8 %

### Yeasts

Name	Type	Form	Amount	Laboratory
s04	Ale	Dry	11.5 g	---