

Bartoszko #3

- 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 | --- |