

milk stout v.4 2018

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **21**
- SRM **35.2**
- Style **Oatmeal Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **4 %**
- Size with trub loss **21.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **23.5 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18.5 liter(s)**

Steps

- Temp **65 C**, Time **1 min**
- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **69.8C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **1 min** at **65C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **23.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|--------------------------------|----------------|-------|------|
| Grain | Briess - Pale Ale Malt | 4 kg (71.4%) | 80 % | 7 |
| Grain | Pilzneński | 0.4 kg (7.1%) | 81 % | 4 |
| Adjunct | laktoza | 0.6 kg (10.7%) | --- % | --- |
| Grain | Jęczmień palony | 0.4 kg (7.1%) | 55 % | 1100 |
| Grain | Strzegom Czekoladowy ciemny | 0.2 kg (3.6%) | 68 % | 1200 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 15 g | 70 min | 13.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale | Slant | 100 ml | Safale |