

Nie wiem czy stout czy Brown porter

- Gravity **15.2 BLG**
- ABV **6.3 %**
- IBU **24**
- SRM **27.2**
- Style **Foreign Extra Stout**

Batch size

- Expected quantity of finished beer **43 liter(s)**
- Trub loss **5 %**
- Size with trub loss **45.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **54.5 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **39 liter(s)**
- Total mash volume **52 liter(s)**

Steps

- Temp **66 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **39 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **45 min** at **66C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **28.5 liter(s)** of **76C** water or to achieve **54.5 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------------|---------------|-------|------|
| Grain | Briess - Pale Ale Malt | 4 kg (30.1%) | 80 % | 7 |
| Grain | Monachijski | 4 kg (30.1%) | 80 % | 16 |
| Grain | Strzegom Wiedeński | 2 kg (15%) | 79 % | 10 |
| Grain | Słód Caramunich Typ II Weyermann | 1 kg (7.5%) | 73 % | 120 |
| Grain | Caraaroma | 0.5 kg (3.8%) | 78 % | 400 |
| Grain | Caraamber | 0.5 kg (3.8%) | 75 % | 59 |
| Grain | Strzegom Czekoladowy ciemny | 0.5 kg (3.8%) | 68 % | 1200 |
| Sugar | Muscovado ciemny | 0.3 kg (2.3%) | 100 % | 22 |
| Grain | Płatki owsiane | 0.5 kg (3.8%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|-----------|-----------|--------|--------|------------|
| Boil | Tradition | 50 g | 60 min | 6 % |
| Boil | Tradition | 50 g | 8 min | 6 % |
| Whirlpool | Tradition | 50 g | 30 min | 6 % |

| | | | | |
|------|-----------------------|------|-------|-----|
| Boil | Saaz (Czech Republic) | 20 g | 8 min | 4 % |
|------|-----------------------|------|-------|-----|

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------|------|-------|--------|------------|
| WLP002 - English Ale Yeast | Ale | Slant | 400 ml | White Labs |

Extras

| Type | Name | Amount | Use for | Time |
|-------------|------|--------|---------|--------|
| Water Agent | Gips | 5 g | Mash | 60 min |