

# Barrel Aged Stout

- Gravity **23.3 BLG**
- ABV **10.7 %**
- IBU **45**
- SRM **34.1**
- Style **American Stout**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **22 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **28.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **19 liter(s)**
- Total mash volume **28.5 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **0 min**

## Mash step by step

- Heat up **19 liter(s)** of strike water to **75C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **19.3 liter(s)** of **76C** water or to achieve **28.8 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pilsner malt        | 5 kg (52.6%)   | 82 %  | 4   |
| Grain | Pszeniczny                 | 1.5 kg (15.8%) | 83 %  | 4   |
| Grain | Strzegom Wiedeński         | 1 kg (10.5%)   | 79 %  | 10  |
| Grain | Carafa II                  | 0.5 kg (5.3%)  | 70 %  | 812 |
| Grain | Strzegom Czekoladowy jasny | 0.5 kg (5.3%)  | 68 %  | 400 |
| Grain | Caramel/Crystal Malt - 40L | 1 kg (10.5%)   | 74 %  | 79  |

## Hops

| Use for | Name  | Amount | Time   | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil    | Iunga | 60 g   | 60 min | 11 %       |

## Yeasts

| Name          | Type | Form  | Amount | Laboratory |
|---------------|------|-------|--------|------------|
| Lutra OYL-071 | Ale  | Slant | 100 ml | Omega      |

## Extras

| Type        | Name             | Amount | Use for | Time   |
|-------------|------------------|--------|---------|--------|
| Water Agent | Gips piwowarski  | 4 g    | Mash    | 60 min |
| Water Agent | Chlorek wapnia   | 7 g    | Mash    | 60 min |
| Water Agent | Kreda(Redukwas)  | 19 g   | Mash    | 60 min |
| Water Agent | Kwas mlekowy 80% | 1.7 g  | Mash    | 0 min  |

## Notes

- Kwas mlekowy 80% 1.7ml na 30l wody do wyśładzania  
 Profil wody(słodowy): /Ca-159.2/Mg-4/Na-4/Cl-96.3/SO4-62.5/HCO3-277/  
 Fermentacja:3 dni w 20°C później temp. pokojowa.  
*Feb 10, 2022, 1:12 PM*