

budżetowy stout

- Gravity **10.2 BLG**
- ABV ---
- IBU **40**
- SRM **40**
- Style **Dry Stout**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **19.9 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **8.6 liter(s)**
- Total mash volume **11.5 liter(s)**

Steps

- Temp **67 C**, Time **90 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **0 min**

Mash step by step

- Heat up **8.6 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **90 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **0 min** at **76C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **19.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|-------|------|
| Grain | Strzegom Monachijski typ II | 1 kg (34.7%) | 79 % | 22 |
| Grain | Strzegom Czekoladowy ciemny | 0.15 kg (5.2%) | 68 % | 1200 |
| Grain | Weyermann - Carafa II | 0.23 kg (8%) | 70 % | 837 |
| Grain | Viking Pale Ale malt | 1.5 kg (52.1%) | 80 % | 5 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil | Cascade | 2 g | 5 min | 6 % |
| Boil | centennial | 10 g | 60 min | 9 % |
| Boil | calypso | 5 g | 40 min | 13 % |
| Boil | Perle | 12 g | 60 min | 7 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|-------|--------|------------|
| m36 | Ale | Slant | 150 ml | --- |