

## Stout

- Gravity **16.8 BLG**
- ABV **7.1 %**
- IBU **30**
- SRM **36.9**
- Style **Dry Stout**

### Batch size

- Expected quantity of finished beer **14 liter(s)**
- Trub loss **5 %**
- Size with trub loss **14.7 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **17.7 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **19 liter(s)**

### Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **10 min**

### Mash step by step

- Heat up **14.3 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **76C**
- Sparge using **8.2 liter(s)** of **76C** water or to achieve **17.7 liter(s)** of wort

### Fermentables

| Type  | Name                             | Amount         | Yield | EBC |
|-------|----------------------------------|----------------|-------|-----|
| Grain | Strzegom Pale Ale                | 3 kg (63.2%)   | 79 %  | 6   |
| Grain | Słód Caramunich Typ II Weyermann | 1 kg (21.1%)   | 73 %  | 120 |
| Grain | Castle malting Coffe Light       | 0.25 kg (5.3%) | 70 %  | 250 |
| Grain | Strzegom Czekoladowy jasny       | 0.25 kg (5.3%) | 68 %  | 400 |
| Grain | Jęczmień palony                  | 0.25 kg (5.3%) | 55 %  | 985 |

### Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Palisade | 25 g   | 60 min | 7.5 %      |
| Boil    | Palisade | 25 g   | 5 min  | 7.5 %      |

### Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale k-97 | Ale  | Dry  | 11 g   | fermentis  |

### Notes

- Słody czekoladowy, kawowy i jęczmień palony na 72 stopnie celsjusza  
*Sep 3, 2017, 10:09 AM*