

stout

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **20**
- SRM **37.6**
- Style **Sweet Stout**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **78 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.4 liter(s)**
- Total mash volume **20.6 liter(s)**

Steps

- Temp **67 C**, Time **80 min**
- Temp **70 C**, Time **10 min**
- Temp **77 C**, Time **10 min**

Mash step by step

- Heat up **15.4 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **80 min** at **67C**
- Keep mash **10 min** at **70C**
- Keep mash **10 min** at **77C**
- Sparge using **15.1 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 3 kg (53.1%) | 80 % | 4.5 |
| Grain | Strzegom Karmel 150 | 0.5 kg (8.8%) | 75 % | 150 |
| Grain | Monachijski | 0.5 kg (8.8%) | 80 % | 16 |
| Grain | Pszeniczny | 0.5 kg (8.8%) | 85 % | 4 |
| Grain | Strzegom Czekoladowy ciemny | 0.3 kg (5.3%) | 68 % | 1200 |
| Grain | Jęczmień palony | 0.35 kg (6.2%) | 55 % | 985 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (8.8%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 10 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------|------|------|--------|------------|
| Gozdawa Pure Ale Yeast 7 | Ale | Dry | 10 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------|--------|---------|--------|
| Flavor | laktoza | 500 g | Boil | 10 min |