

# Strong Bitter

- Gravity **16.1 BLG**
- ABV **6.8 %**
- IBU **37**
- SRM **6.9**

## Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.8 liter(s)**
- Total mash volume **14.4 liter(s)**

## Steps

- Temp **67 C**, Time **90 min**

## Mash step by step

- Heat up **10.8 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **90 min** at **67C**
- Sparge using **6.8 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński        | 1.9 kg (52.8%) | 80 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.9 kg (25%)   | 79 %  | 16  |
| Grain | Strzegom Karmel 30         | 0.3 kg (8.3%)  | 75 %  | 30  |
| Grain | Płatki owsiane             | 0.5 kg (13.9%) | 85 %  | 3   |

## Hops

| Use for | Name                  | Amount | Time   | Alpha acid |
|---------|-----------------------|--------|--------|------------|
| Boil    | Marynka               | 15 g   | 60 min | 8.8 %      |
| Boil    | Saaz (Czech Republic) | 20 g   | 60 min | 4 %        |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 50 ml  | Safale     |

## Notes

- Drożdże S-04 - gęstwa po piwie Full Aroma Drops.  
Płatki wrzucone do gotującej się wody i przetrzymane na wyłączonym palniku 20 min.  
Słaba wydajność. Wyszło 11,5 l - 13,5 BLG.  
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