

## T#05 - Strong Bitter

- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **32**
- SRM **10.2**
- Style **Extra Special/Strong Bitter (English Pale Ale)**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **7.5 %**
- Size with trub loss **22.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **9 %/h**
- Boil size **24.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **23.1 liter(s)**
- Total mash volume **29.7 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **10 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **23.1 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **10 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **8 liter(s)** of **76C** water or to achieve **24.5 liter(s)** of wort

### Fermentables

| Type  | Name                | Amount         | Yield | EBC |
|-------|---------------------|----------------|-------|-----|
| Grain | Strzegom Wiedeński  | 3 kg (45.5%)   | 79 %  | 10  |
| Grain | Strzegom Pale Ale   | 2.5 kg (37.9%) | 79 %  | 6   |
| Grain | Strzegom Pilzneński | 1 kg (15.2%)   | 80 %  | 4   |
| Grain | Strzegom Karmel 600 | 0.1 kg (1.5%)  | 68 %  | 601 |

### Hops

| Use for | Name                | Amount | Time     | Alpha acid |
|---------|---------------------|--------|----------|------------|
| Boil    | Zula                | 25 g   | 60 min   | 8.3 %      |
| Boil    | Hallertau Tradition | 50 g   | 15 min   | 5 %        |
| Dry Hop | Willamette          | 50 g   | 5 day(s) | 5 %        |

### Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | Fermentis  |