

## 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