

## #25

- Gravity **13.1 BLG**
- ABV ---
- IBU **37**
- SRM **13**
- Style **Special/Best/Premium Bitter**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **50 C**, Time **20 min**
- Temp **64 C**, Time **30 min**
- Temp **70 C**, Time **30 min**
- Temp **77 C**, Time **2 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **55C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **30 min** at **64C**
- Keep mash **30 min** at **70C**
- Keep mash **2 min** at **77C**
- Sparge using **19.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3 kg (50%)	80 %	4
Grain	Strzegom Wiedeński	1 kg (16.7%)	79 %	10
Grain	Monachijski	1.5 kg (25%)	80 %	16
Grain	Strzegom Karmel 150	0.5 kg (8.3%)	75 %	150

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	25 g	60 min	13 %
Boil	Spalt Spalter	20 g	20 min	3.5 %
Boil	Spalt Spalter	30 g	0 min	3.4 %
Boil	Lublin (Lubelski)	10 g	20 min	3.5 %

### Yeasts

Name	Type	Form	Amount	Laboratory
us 05	Ale	Dry	11 g	s