

## # 38 The Lumberjack

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **73**
- SRM **29.5**
- Style **American Stout**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **90 min**
- Evaporation rate **10 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.7 liter(s)**
- Total mash volume **22.2 liter(s)**

### Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **16.7 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3.25 kg (58.6%)	79 %	6
Grain	Weyermann - Rye Malt	1 kg (18%)	85 %	7
Grain	Strzegom Monachijski typ II	0.7 kg (12.6%)	79 %	22
Grain	Carafa III	0.2 kg (3.6%)	70 %	1034
wyrzew				
Grain	Weyermann - Chocolate Rye	0.2 kg (3.6%)	20 %	493
wyrzew				
Grain	Strzegom Czekoladowy ciemny	0.2 kg (3.6%)	68 %	1200
wyrzew				

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	15 g	60 min	15.8 %
Boil	Citra	15 g	30 min	12.5 %
Boil	Simcoe	15 g	30 min	13.2 %
Boil	Citra	15 g	15 min	12.5 %

Boil	Simcoe	15 g	15 min	13.2 %
Dry Hop	Citra	30 g	5 day(s)	12.5 %
Dry Hop	Simcoe	30 g	5 day(s)	13.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM52 Amerykański Sen	Ale	Slant	300 ml	---