

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **23**
- SRM **18.4**

### Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **32.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

### Steps

- Temp **62 C**, Time **60 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **17.4 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **20.6 liter(s)** of **76C** water or to achieve **32.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (55.6%)	80 %	4
Grain	Strzegom Monachijski typ I	1 kg (15.9%)	79 %	16
Grain	BESTMALZ - Best Heidelberg Wheat Malt	0.8 kg (12.7%)	82 %	3
Grain	strzegom karmel 30	0.25 kg (4%)	75 %	30
Grain	Strzegom Karmel 150	0.25 kg (4%)	75 %	150
Sugar	Candi Sugar, Dark	0.5 kg (7.9%)	78.3 %	542

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	12.5 g	40 min	8.8 %
Boil	Marynka	12.5 g	30 min	8.8 %
Boil	Lublin (Lubelski)	35 g	20 min	4 %
+ cukier kandyzowany				

### Extras

Type	Name	Amount	Use for	Time
Spice	suszone skórki pomarańczy	20 g	Boil	60 min
Spice	curacao	20 g	Boil	60 min

### Notes

- safale T-58  
glukoza 125gr 5gr/l  
*Apr 17, 2018, 7:01 PM*