

# ALL

- Gravity **13.6 BLG**
- ABV **5.6 %**
- IBU **40**
- SRM **7.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23 liter(s)**

## Steps

- Temp **44 C**, Time **10 min**
- Temp **53 C**, Time **15 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **15 min** at **53C**
- Keep mash **30 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.8 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pszeniczny	0.5 kg (8.7%)	75 %	4
Grain	Strzegom Pilzneński	4 kg (69.6%)	75 %	4
Grain	Strzegom Monachijski typ I	0.5 kg (8.7%)	79 %	16
Grain	Victory Malt	0.75 kg (13%)	73 %	49

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Amarillo	25 g	60 min	9.5 %
Boil	Cascade PL	14 g	60 min	5.2 %
Boil	Lublin (Lubelski)	14 g	10 min	4 %
Boil	Amarillo	14 g	10 min	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale S-04	Ale	Dry	11 g	Safale
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## Notes

- Przerwa ferulikowa (44 stopnie) tylko dla sŁodu pszenicznego  
*Sep 22, 2019, 11:30 AM*