

# Święta trójca

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **27**
- SRM **5.4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **32.4 liter(s)**

## Mash information

- Mash efficiency **86 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **15.8 liter(s)**
- Total mash volume **20.3 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.8 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **10 min** at **78C**
- Sparge using **21.1 liter(s)** of **76C** water or to achieve **32.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (66.7%)	79 %	6
Grain	Strzegom Monachijski typ I	1 kg (22.2%)	79 %	16
Grain	Strzegom Karmel 30	0.5 kg (11.1%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Simcoe	15 g	20 min	11.7 %
Boil	Cascade	15 g	20 min	5.8 %
Boil	Amarillo	15 g	20 min	7.3 %
Aroma (end of boil)	Simcoe	15 g	3 min	11.7 %
Aroma (end of boil)	Cascade	15 g	3 min	5.8 %
Aroma (end of boil)	Amarillo	15 g	3 min	9.5 %
Dry Hop	Simcoe	10 g	14 day(s)	11.7 %
Dry Hop	Cascade	10 g	14 day(s)	5.8 %
Dry Hop	Amarillo	10 g	14 day(s)	9.5 %
cała trójka na burzliwą (1 dzień po starcie)				
Dry Hop	Simcoe	10 g	3 day(s)	13.2 %

Dry Hop	Cascade	10 g	3 day(s)	6 %
Dry Hop	Amarillo	10 g	3 day(s)	9.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11 g	Fermentis