

# Imperium Śledzia

- Gravity **20 BLG**
- ABV **8.8 %**
- IBU **111**
- SRM **11.7**
- Style **Imperial IPA**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **50.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **49.8 liter(s)**
- Total mash volume **66.4 liter(s)**

## Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **49.8 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **17.4 liter(s)** of **76C** water or to achieve **50.6 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	15 kg (90.4%)	79 %	6
Grain	Karmelowy Czerwony	0.16 kg (1%)	75 %	59
Grain	Weyermann - Carafa I	0.24 kg (1.4%)	70 %	690
Grain	Pszeniczny	1.2 kg (7.2%)	85 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus/Tomahawk/Zeus	50 g	60 min	15.5 %
Boil	Nugget	70 g	60 min	13 %
Boil	Crystal	20 g	30 min	4.5 %
Boil	Nugget	30 g	30 min	13 %
Boil	Columbus/Tomahawk/Zeus	50 g	30 min	15.5 %
Aroma (end of boil)	Crystal	80 g	3 min	4.5 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM54 Gorączka kalifornijska	Ale	Slant	1000 ml	Fermentum Mobile
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