

# Człowiek Widmo

- Gravity **21.3 BLG**
- ABV **9.5 %**
- IBU **128**
- SRM **6.2**
- Style **Imperial IPA**

## 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 **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **29.2 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **71 C**, Time **20 min**
- Temp **77 C**, Time **5 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **20 min** at **71C**
- Keep mash **5 min** at **77C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Weyermann - Pale Ale Malt	6 kg (82.2%)	85 %	7
Grain	Viking Wheat Malt	1 kg (13.7%)	83 %	5
Słód pszeniczny na 52°				
Grain	Płatki owsiane	0.3 kg (4.1%)	85 %	3
Płatki owsiane na 44°				

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	20 g	60 min	12 %
Boil	Warrior	30 g	60 min	15.5 %
Boil	Amarillo	30 g	30 min	10 %
Boil	Citra	35 g	30 min	12 %
Aroma (end of boil)	Amarillo	30 g	10 min	9.5 %
Aroma (end of boil)	Citra	65 g	10 min	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Safale US-05	Ale	Dry	11.5 g	Fermentis
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### Extras

Type	Name	Amount	Use for	Time
Water Agent	Gips piwowarski	4 g	Mash	---