

# Zulu-Zombie Imperial Rye IPA (Kooperacja Śmierć na Wyjeździe)

- Gravity **22.2 BLG**
- ABV **10 %**
- IBU **91**
- SRM **7.4**
- Style **Rye IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **7 %**
- Size with trub loss **23.5 liter(s)**
- Boil time **100 min**
- Evaporation rate **7 %/h**
- Boil size **28.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.5 liter(s) / kg**
- Mash size **25 liter(s)**
- Total mash volume **35 liter(s)**

## Steps

- Temp **45 C**, Time **30 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **79 C**, Time **1 min**

## Mash step by step

- Heat up **25 liter(s)** of strike water to **50C**
- Add grains
- Keep mash **30 min** at **45C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **79C**
- Sparge using **13.7 liter(s)** of **76C** water or to achieve **28.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	5 kg (50%)	79 %	6
Grain	Żytni	5 kg (50%)	85 %	8

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	ZULU	100 g	40 min	10 %
Boil	Zombie	50 g	30 min	7.6 %
Boil	Zombie	50 g	15 min	7.6 %
Boil	Zombie	50 g	0 min	7.6 %
Dry Hop	Zombie- cicha	50 g	4 day(s)	7.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
US-05	Ale	Dry	23 g	---

## Extras

Type	Name	Amount	Use for	Time
Fining	Wherflock	0.5 g	Boil	15 min