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Heat Damage

[< Damage](#)

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EDIT

DAMAGE EFFICACY

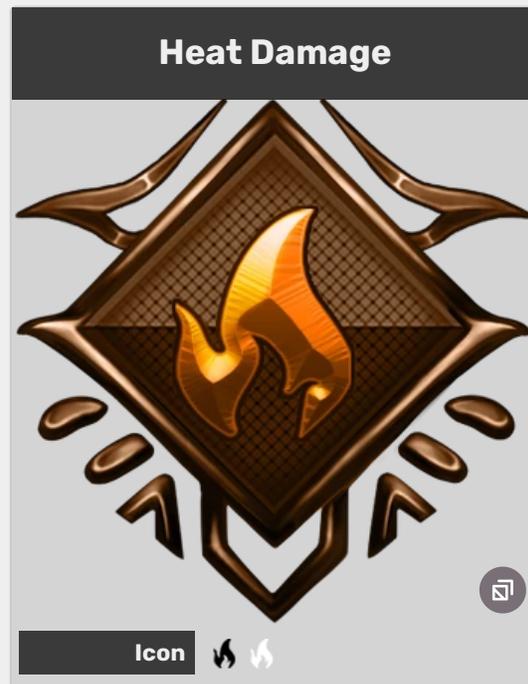
x1.5 damage to *Infested***x0.5** damage to *Kuva Grineer*

STATUS EFFECT

 **Heat** sets enemies on fire causing them to panic and temporarily reduces their armor up to 50% with multiple stacks.

—In-game Description

 **Heat Damage** is one of the four primary elemental damage types. Deals increased damage to [Infested](#) but reduced against [Kuva Grineer](#). Its [Status Effects](#) ignites enemies with damage over time, causing them to panic and temporarily reduces [Armor](#).



☰ Contents



- 1.1. General
 - 1.1.1. Damage Over Time
 - 1.1.2. Heat Inherit and Repeated Application
 - 1.1.3. Crowd Control
 - 1.1.4. Armor Stripping
- 1.2. Railjack
2. Elemental Combinations
3. Heat Sources
 - 3.1. Weapons
 - 3.2. Enemies
 - 3.3. Mods
 - 3.4. Abilities
 - 3.5. Arcanes
4. Sources of Heat Resistances
 - 4.1. Arcanes
 - 4.2. Mods
5. Additional Effects
6. Tips
7. Media
8. Patch History
9. References

Status Effects

General

The status effect of  **Heat** damage is **Ignite**. It sets the enemy ablaze, which makes them panic, reduces their [armor](#) by up to **50%** and, after a 1 second delay, deals a tick of damage every second for **6** seconds.

Enemies killed while under or by a  **Heat** proc will be left in ashes, burning away shortly afterward.

Damage Over Time

Each tick deals  **Heat** damage equal to:



$$\text{Modded Base Damage} = \text{Base Damage} \times (1 + \text{Base Damage Bonuses}) \times (1 + \text{Faction Damage Bonuses})$$

Notice that modded base damage calculation used for DoT is not the same as normal damage calculations, ignoring physical and elemental damage bonuses.

$$\begin{aligned} \text{Heat Proc Damage per Tick} &= 0.5 \times \text{Modded Base Damage} \\ &\times (1 + \text{Heat Damage Bonuses}) \\ &\times (1 + \text{Faction Damage Bonuses}) \\ &\times \text{Additional Multipliers} \end{aligned}$$

Additional Multipliers include modded critical multiplier on [Critical Hit](#) and multipliers on [Enemy Body Parts](#); these stack multiplicatively with each other.

For example, tick damage for a weapon with an innate 100 damage,  [Serration](#),  [Hellfire](#), and  [Bane of Grineer](#) will be:

$$\text{Modded Damage} = 100 \times (1 + 1.65) \times (1 + 0.3) = \mathbf{344.5}$$

$$\text{Heat Mod Multiplier} = (1 + 0.9) \times (1 + 0.3) = \mathbf{2.47x}$$

$$\text{Tick Damage} = 0.5 \times 344.5 \times 2.47 = \mathbf{425.4575}$$

As can be seen in the above calculations for tick damage, Faction Damage is applied twice, making their effective bonus = $(1 + \text{Faction Damage bonus})^2$. This is a $1.30 \times 1.30 = 1.69$ or +69% increase for the 30% Faction Damage mods and $1.55 \times 1.55 = 2.4025$ or +140.25% for the 55% Primed Faction Damage mods.

Heat tick damage and proc duration

Time from initial proc	0s	1s	2s	3s	4s	5s	6s	7s
Tick damage occurred?	X	✓	✓	✓	✓	✓	✓	X

Heat Inherit and Repeated Application

Repeated application of [Heat](#) procs do not stack tick damage in the same way other damage over time (DoT) [status effects](#) like [Toxin](#), [Electricity](#), or [Slash](#) do. Instead, a [Heat](#) proc both adds a stack **and** refreshes the duration of **all** currently active heat stacks on the target. This allows for ramping up [Heat](#) tick damage indefinitely (scaling up linearly) as long as heat status is kept refreshed within the 6 second effect duration (modified by [Status Duration](#)). Additionally, all [Heat](#) status stacks are automatically consolidated into one tick of damage per second, with new heat procs refreshing and further adding to this tick damage.



Crowd Control

Enemies affected by a **Heat** proc are ignited in flames and will panic and flail around for a few seconds, preventing them from taking any other actions. The length of the panic animation depends on enemy type: approximately **4** seconds for humanoids, **3** for most Infested, and **2** for [MOAs](#) and [Chargers](#), however [Ospreys](#), [Bosses](#) and [Tenno](#) are immune, and their ability to act is not impeded. Repeated application of **Heat** status will reapply the panic effect.

Armor Stripping

The **Heat** status effect's armor strip has a ramp-up time when it first procs and a ramp downtime when the proc ends. Every 0.5 seconds **after** the initial proc, the enemy will have 15%, 30%, 40%, 50% of its armor stripped. It will therefore take 2 seconds to reach the maximum armor strip.^[1] Proccing more heat status effects within this time frame will not speed up the armor stripping process.

After the proc ends, the target will regain armor every 1.5 seconds for 6 seconds. The enemy's armor strip will decrease as follows: 50%, 40%, 30%, 15%, 0%.^[2]

Status Duration mods will increase the time intervals for the armor strip as expected. For example, with +100% Status Duration, the armor strip will occur every second instead of every half second. As a result, the full 50% armor strip will only be achieved after 4 seconds.

Heat status [armor](#) reduction is **multiplicative** with other armor reduction sources. This can be expressed as the following:

Armor after reduction = $(1 - 50\%) \times [1 - (20\% + 6\% \times \text{Number of Corrosive stacks})] \times (1 - 18\% \times \text{Number Corrosive Projections})$

▼ View detailed examples ▼

Railjack

Railjack <DT_FIRE>Heat Damage results in a Sear Status Effect which causes rounds to burn through enemy ships and deal Damage Over Time.

—In-Game Description

The status effect of **Heat** damage against [Railjack](#) space enemies is **Sear**, dealing **6** ticks of damage over **5** seconds. Against the Tenno's [Railjack](#), it causes a **Fire Hazard**



Sear ticks deal **100% × *Modded Damage* × (1 + Heat Damage bonuses)** as **Heat** damage. Unlike standard heat, each proc has an independent duration and is not refreshed by additional heat procs.

Sear tick damage and proc duration

Time from initial proc	0s	1s	2s	3s	4s	5s	6s	7s
Tick damage occurred?	✓	✓	✓	✓	✓	✓	✗	✗

Elemental Combinations

Heat damage mods can be combined with other elemental mods to create a new elemental damage type.

- **Heat** + **Cold** = **Blast**
- **Heat** + **Toxin** = **Gas**
- **Heat** + **Electricity** = **Radiation**

Heat Sources

Main article: [Category:Heat Damage](#)

Weapons

[Expand]

Main article: [Category:Heat Damage Weapons](#)

Enemies



Flameblade wielding the [Twin Basolk](#)

Scorch wielding the [Ignis](#)

Napalm wielding the [Pyrotechnic Ogris](#)

General Sargas Ruk uses [Blast Grenade](#), [Fire Blast](#), and [Inferno](#)

Lieutenant Lech Kril (Phase 2) uses [Fire Wave](#)

Hyekka Master wielding the [Ignis](#) and can throw Fire Bombs



Hyena NG uses [Blast Grenade](#) and [Fire Wave](#)

Corrupted MOA firing a Plasma Beam

[Machinist](#)

Mods

[Rifle](#)

[Shotgun](#)

[Pistol](#)

[Melee](#)

[Archgun](#)

[Archmelee](#)

[Warframe](#)

[Co](#)



[Hellfire](#)

[Thermite Rounds](#)

[Wildfire](#)

Abilities

[Ember](#) Citrine Chroma (Heat) Gauss Lavos Nezha Protea [Ti](#)

[Fireball](#) Fire Blast Inferno

[Strength:](#)

150 / 275 / 300 / 400 (**Heat** damage on impact)

50 / 100 / 125 / 150 (

Heat area damage)

[Duration:](#)

1.5 s (combo window)

[Range:](#)

3 m (radius)

[Fireball](#)

Charge and release a fiery projectile that ignites enemies on contact.

1

25 Introduced in [Vanilla](#) (2012-10-25)

[Misc:](#)

100% (**Heat** status chance)

8.0x (combo damage multiplier cap)

+1%/s (heat generation rate bonus for Immolation)



[Phoenix Blaze](#)

Arcanes

[Magus Melt](#)

Sources of Heat Resistances

Arcanes

[Arcane Ice](#)

Mods



[Flame Repellent](#)

[Orgone Tuning Matrix](#)

Additional Effects

Some mods and arcanes add additional effects when a **Heat** occurs or dealing **Heat** damage.

[Archon Vitality](#)

[Cascadia Flare](#)

[Topaz Archon Shard](#)

Tips

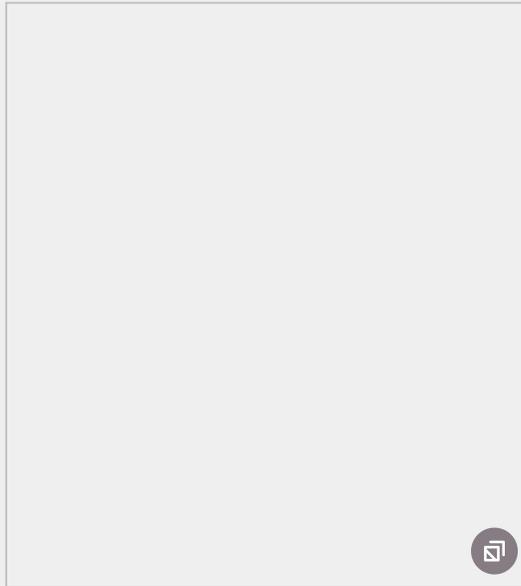
- [Magus Accelerant](#) is a rare case of resistance reduction that will multiply the



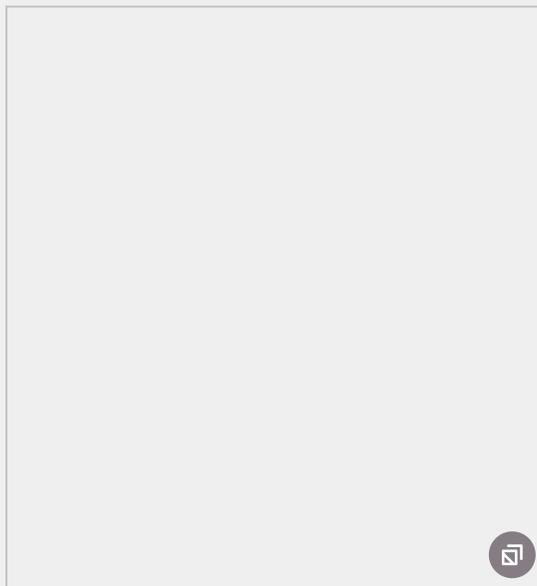
damage bonus. However, it does **not** reduce armor resistance, where it would have an exponential effect with health resistances.

- **Heat** damage and its combination elements are not very effective against Corpus. In addition to **Heat** damage being reduced against Proto Shields, **Gas** damage is reduced against Flesh and **Radiation** damage is reduced against Shields (though it is increased against Robotic).

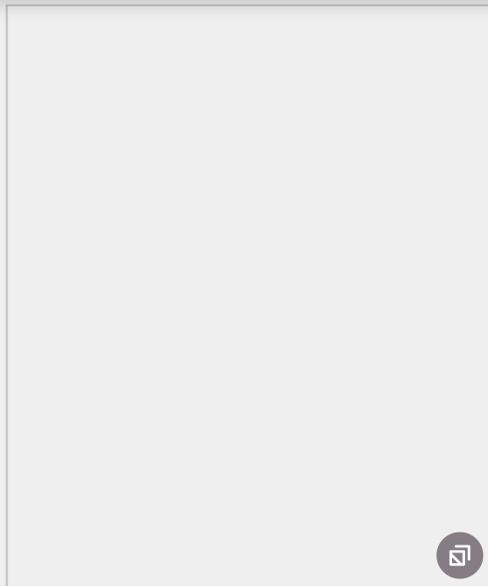
Media



Heat visuals on a melee weapon



An enemy killed while affected by a heat proc



An enemy under the effects of a heat proc



Patch History

[Update 36.0](#) (2024-06-18)

Simplified Faction Resistances

- Infested: Vulnerable to **Heat**
- Kuva Grineer:
 - Resistant to **Heat**

[Update 26.0](#) (2019-10-31)



1. [1] (<https://imgur.com/a/V20c6hl>)
2. [2] (<https://imgur.com/a/Zfkv66b>)
3. Does not apply when damaging [Overguard](#) or units that cannot be frozen solid by Thermal Sunder, such as Index Brokers

Damage Mechanics		Edit	[Collapse]
Offense	Attack Speed • Buff & Debuff • Critical Hit • Damage (Faction Damage Bonus, Positive Type Modifier, Quantization) • Damage Falloff • Damage Reflection • Enemy Body Parts • Fire Rate • Multishot • Punch Through • Status Effect		
Defense	Armor • Damage Attenuation • Damage Reduction • Health (Healing) • Invulnerability • Negative Damage Type Modifier • Overguard • Shield		
Damage Types			
Physical (IPS)		Impact • Puncture • Slash	
Elemental	Primary (HCET)	Heat • Cold • Electricity • Toxin	
	Secondary	Blast • Corrosive • Gas • Magnetic • Radiation • Viral	
Special		Tau • True • Void	
Hidden/Internal		Cinematic • Energy Drain • Shield Drain	
Status Effects			
Physical		Knockback • Weakened • Bleed	
Elemental	Primary	Ignite • Freeze • Tesla Chain • Poison	
	Secondary	Inaccuracy • Corrosion • Gas Cloud • Disrupt • Confusion • Virus	
Special		Bullet Attractor	
Effect Only		Big Stagger • Disarmed • Impair (PvP only) • Knockdown • Lifted • Microwave • Parried • Ragdoll • Silence • Sleep • Slow • Stagger • Stun	
Shield, Armor, and Health Classes			
Tenno	Tenno Shield • Tenno Armor • Tenno Flesh		
Grineer	Grineer • Kuva Grineer		
Corpus	Corpus • Corpus Amalgam		
Infested	Infested • Infested Deimos		



Sentient	Sentient
Narmer	Narmer
Zariman	Zariman
The Murmur	The Murmur
Miscellaneous	Hit Points • Object • Overguard
Calculating Bonuses	

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Languages ▼

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