Hash Function Applications: Property Requirements

Importance (1=Low, 5=Critical)

Legend:
- Preimage Resistance
- Collision Resistance
- Speed Requirement

Application	Preimage Resistance	Collision Resistance	Speed Requirement
Password Storage	5	3	1
File Integrity	4	5	4
Digital Signatures	5	5	4
Blockchain PoW	5	3	5
Git Version Control	3	4	4
SSL/TLS Certificates	5	5	4

Hash Used:

Password Storage	File Integrity	Digital Signatures	Blockchain PoW	Git Version Control	SSL/TLS Certificates
bcrypt	*SHA-256*	*SHA-256*	*SHA-256*	*SHA-1**	*SHA-256*
Argon2	*SHA-3*	*Ed25519*	*(double)*	*SHA-256*	*SHA-384*

*SHA-1 deprecated; Git transitioning to SHA-256